Challenges and Opportunities for Biodiversity Conservation and Sustainable Development of Ecotourism in Lalzi Bay, Durres County, Albania - Today's Science for Tomorrow's Management.

A Methodology Guide with a Concrete Example by Lalzi Bay, Durres County, Albania

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Abstract—Tourism and coastal lines are the business sectors since centuries especially in the European Nations and Albania is one such spots. However, in recent decades tourism is experienced as vulnerability of the surrounding ecological conditions of air, soil, water, land and the communities that are dependant and sharing the ecosystem among flora and fauna. Experts opine that apart from the maintenance of near-originality of ecological biodiversity the tourism rather known as ecotourism an indigenous socio-cultural maintenance of indigenous/traditional knowledge of the local people must be well cared in order to sustain on sustainable grounds. As a general tendency, growth of tourism has been affected by the deterioration in the economic conditions on one aspect and unsustainable ecological areas affected since human interventions earlier to this has negative impact on futuristic tourist spots.

However, tourism in Albania as of now is 11% of GDP and coastal regions accounting to 2-4%. An amicable Mediterranean climate with 300 sunny days similar parameters of Greece and Spain throws up sustainable ecotourism in future decades provided public

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services namely, transportation, road safety, lodging, food availability, recreational regiments, banking accessibility are as per the World Tourism Organizations' protocols. Thus as of Albanian situation, classification of ecotourism activities to safe-guard the localities with its maintenance of ecological land, water and climate has become a paramount importance with a wanting and satisfactory options through harnessing human energy for profit and fitness of ecological flora and fauna. A check on anthropogenic wastes and their safer utilizations inclusive of agricultural and industrial operations in line with Lalzi Bay Coastal Line are of utmost importance for the reason that the Adriatic Sea Coast is the one long stretch of Albanian Lifeline. The present work is based on the methodology of the sustainable management of the same issue.

Keywords—Albania, ecotourism, Lalzi Bay, sustainability.

I. Introduction

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m ECENT}$ decades have seen emergent issues that bear potentially massive risks for the long-term trajectory of coastal environments and the uses we make of them. These issues have raised awareness, and in some cases, motivated investment of much funding and research and management efforts in safe-guarding the localities of the coastal belt. On most of the occasions, coastal lines and tourism go hand-inhand as business in creating huge industrial activities through stakeholder of private sectors, governmental, nongovernmental and NGO based networks that are always prone to vulnerability in terms of dwindling ecology (anthropological stress) caused at the level of climate, soil, water, flora and fauna which limits/shifts the survival of indigenous people of that particular locality. Again from economic growth, the business of tourism has created sensitivity in the sectors of socio-cultural aspects.

Experts opine that apart from the maintenance of nearoriginality in biodiversity it is of truth that the originality of indigenous socio-cultural maintenance of

indigenous/traditional knowledge of the local people must be well protected in order to sustain uniqueness of the near-originality of the tourist areas. [3] Dabour, (2003), opines that touristic activities generate significant economic benefits to both host countries and tourists' home countries alike. [10] Malsia-Lushaj et al., (2012) have clearly shown the aspects under prompt activities for the sustainable ecotourism activities throughout the coastal zone of Lalzi Bay, Durres County, Albania taking as one example and the methodology benefits to mark other areas of the Mediterranean Regions of Albania fit to put under Biodiversity Reserves through ecotourism.

Growth in the tourism sector has been affected by the deterioration in the economic conditions [3] (Dabour, 2003) on one aspect and on the other due to deterioration of ecological sustainability in the biodiversity regions of the tourist spots. Table I shows region wise tourism earner during 2001, (adapted from the data [3] Dabour, 2003) and summarizing the problems facing tourism and the development of a sustainable tourism sector. [3] Dabour, (2003), enlists the following aspects:

- 1. Lack of inherent tourism potential based on natural/historical/cultural resources;
- 2. Lack of knowledge and awareness even fundamental cognizance of the economic importance of tourism and its positive impact as a potential source of foreign exchange and employment;
- 3. Lack of technical know-how and weak promotional activity as modern industrial perspectives;
- 4. Lack of tourism related infrastructure like hotels and lodging services; transport and communications; safety and security etc.
- 5. Lack of tourism investments as service oriented projects to minimize problems.
- 6. Lack of consistent tourism strategies and policies in the government departments and tourism private agencies.
- 7. Lack of tourism diversification as establishments of new touristic spots/destinies and developments.
- 8. Lack of tourism safety either positive/negative perspectives.

Tourism in Albania accounts to 11% of GDP [7] (Jupe and Bundo, web access) and coastal regions accounting to 2-4% of GDP and thus management and implementations of Ecotourism are pre-requisites. Last 2-3 decades, Albania has seen the cause and effect of several decades of uncontrollable exploitations of the coastal regions of tourist importance. Almost all of the emergent issues to be borne as potentially massive risks for the long-term trajectory of Albania's coastal environments namely [10] (Malsia-Lushaj et al, 2012):

- ⇒ Sandy ecological uncertainties at the level of geological, hydrological and soil climate;
- ⇒ Coastal forest range uncertainties with its affected flora and fauna;

- ⇒ Changes in climate due to organic pollution (from agro-industrial refuse, wet/biodegradable garbage, sewage sludge biosolids), automobile pollution and industrial gas/smoke release;
- ⇒ Impairment of soil and water due to run away and/or leachates of chemical fertilizers and pesticides from agricultural activities and release of toxic compounds as effluents/waste waters of organic and/or inorganic nature from the industrial sectors.

Although Albania has taken rapid strides in alternations and mitigation and diverting the due causes based on motivated investments in terms of research and management, yet due to economic constraints, the upliftment of one of its bio-sensitive and bio-vulnerable coastal line - Lalzi Sea Bay currently demands International attention (on monetary grounds) at large apart from local, regional and national work enforcement for safe-guard of economic-socio-cultural areas by the applications and implementations of scientific-technological-engineering knowledge to create caring atmosphere under sustainable biodiversity of Albania's most income generating region.

At this juncture biodiversity and ecotourism as per the guidelines of UN (2003) come in as necessity. Ecotourism is meant as activities of leisure/business/recreation/study/research etc. It is one of the faculties that increase GDP. Albania with its 300 days of a calendar year has sunny days with Mediterranean climate as that of Greece and Spain opens up its avenues for ecotourism. However, public services are pre-requisites like transportation, lodging, food availability, recreation, banking facilities etc., as per the World Tourism Organization's Standard Classification of Tourism Activities but the safe-guard of the localities with its ecological surroundings of land, water and climate has become a wanting and satisfactory options as the per the mentioned details of UN (2006).

The present manuscript is based on the excerptions of the methodology book prepared by [10] Malsia-Lushaj et al., (2012), a concrete example of Lalzi Bay, Durres County, Albania covering the fundamental, natural, and economic and social sciences for estuaries, coasts and marine areas to emphasize the links to integrated and sustainable management of 7 Km of Lalzi Bay stretch. The methodology book is based on the author's undisputed issues in the coastal science and management calls for researchers and environmental manager and policy makers, pedagogues for the explorations and implementations of ecotourism sectors. The methodology book also reveals the issues brought to streamlines since 2001 to 2010 marking the efforts to gain that extra GDP for Albania through ecotourism sectors by undisturbing the indigenous locals but to provide job oriented activities in sustainable way.

II. ECOTOURISM AND BIODIVERSTIY

Basic biological sciences and their specialized wings have taken rapid strides not only in research and study but in maintenance of natural resources of all faculties of ecology namely, forests, mangroves, wetlands, streams, marshes, bushes, plains, hills, flora, fauna and microcosm units of soilwater-climate etc through the Law and Order for biodiversity and ecotourism of that particular geo-climatic orientations; shortly, Ecotourism and biodiversity (as two faces of a coin) bring forth Human Rights and Global Responsibility. Table II – enlists the salient features of ecotourism (adapted from Wikipedia).

Wikipedia defines ecotourism as, "a form involving visiting fragile, pristine and relatively undisturbed natural areas, intended as a low-impact and often small scale alternative to standard commercial/mass tourism to educate the traveler, to provide funds for ecological conservation, to directly benefit the economic development and political empowerment of local communities and to foster different cultures of Human Rights". The term "Ecotourism was coined by [4] Hetzer in 1965 and started ecotourism in early 1970s and later Ceballos-Lascurain popularized it in 1983s (Wikipedia). According to [4] Drumm and Moore (2005), ecotourism can be simply defined as – responsible travel to natural areas that conserves the environment and improves the well-being of local people.

Ecotourism and Biodiversity march hand-in-hand and the successes that bring are many ultimately creating harmonies with nature for sustainability - a true and sole consoling activity since industrialization times. Harnessing human energy through ecotourism maintains biodiversity of all natural resources of land, water, and climate so much so that ecological systems tend to get balanced keeping check on anthropogenic dwindling activities of agricultural and industrial sectors without hampering the productive systems of agriculture and industry but with much more eco-conscious awareness. The conservation of environment and its wideness as a new industry, through Biodiversity and Ecotourism purposes offer more flexibility on day-to-day basis, under mitigation programs to minimize climate changing, in all contexts and reaching through the utility competitive management methods, towards the integrated and permanent sustainable development, as a better future for all [10] (Malsia-Lushaj et al., 2012).

Ecotourism establishes and sustains on the grounds of nearnaturalness of the ecological stability with its originality even though the stretch utilized as tourism spots as revenue generating units. Thus ecotourism is meant as ecologically sustainable tourism. The primary focus of ecotourism is based on the followings:

- > Experiences of the still existing natural areas and to foster environmental, cultural understandings;
- Appreciation of the conservation methodologies based on traditional indigenous locals;
- Conservation to its near-naturalness;

- Protective assemblages in lines of land, water and atmosphere;
- Research and development in lines of biodiversity.
- Data records of man-made mistakes and steps to be implantable to revert back;
- Distribution of returns for conservation purposes as well as to regional and local stakeholders.

Ecotourism while still at a relatively modest level of development in a given region shall provide opportunities as well as challenges for the conservation and sustainable wise use of biodiversity along with manmade resources and such actions are brisk since year 2002 - mark of International Year of Ecotourism. Environmentally sustainable investments in the ecotourism sector produce vital benefits to local communities and provide an important and viable alternative investments with positive perspectives not only in lines of business as tourism but also conserves biodiversity. However, the negative and/or positive impacts needs to be watched and reassembled with time and space; can be achieved through the development of new and innovative eco-engineering management systems with a special focal point of ecotourism Vs ecological sustainability based on natural biological spheres that exist in accordance to soil-water-climate. Henceforth, the current team of experts discusses the *modus* operandi for its dual role as economical returns in line with ecological wants for the sustainable benefits of Albanian Nation.

Thus ecotourism has become of paramount figure to uplift socio-economic status of the indigenous areas to retain to its near originality and then further to hasten by means of sustainability. Sustainable development can be traced back to our original old world practices of anthropogenic nature with its soil, waters and atmospheres were that were harnessed and safe-guarded to its near originality without exploitations. [3] Dabour (2003) has detailed out the problems facing tourism in the OIC member countries and suggests policy recommendations to strengthen co-operation in a sustainable way. [11] Martha, (2008), gives seven key principles of ecotourism although the list may be limitless and each factor stresses the important criteria taken to safeguarding of our blue planet:

- \Rightarrow Traveling to natural destinations;
- ⇒ Impact minimization;
- ⇒ Building environmental awareness;
- ⇒ Providing direct financial benefits for conservation
- ⇒ Providing economic benefits and empowerment for locals:
- ⇒ Respecting local culture; and
- ⇒ Supporting Human Rights and democratic movements.

III. ECOTOURISM CHALLENGES AND CONSTRAINS FACED BY OTHER COUNTRIES

Through the above approaches, multiple sustainable benefits are provided to the biodiversity: as restoration programs of the locality; eco-conscious livelihood among locals; job opportunities for many in all areas; study through all faculties of research and development implementations; eco-businesses of big and small with individualistic, unique cultural heritage based on bio-geo factors; progressive opportunities to establish co-operative cottage units from raw to finished goods be it food, clothing, consumable items that are indigenous to that particular locality. Table III provides an outlook into the positive/ negative aspects of ecotourism (Wikipedia). [8] Lau et al., (2007) has clearly outlined the case study of biodiversity conserve area of Yanayacu pucate watershed/drainage river systems under ecotourism establishments with the support of USAID and other NGOs to operate the systems through local/indigenous people and has shown the constraints faced over the years. A feasibility study [2] (Campana and Flores, 2007), revealed that one of the greatest weakness of the project of Oyacachi Thermal Waters Complex in the part of Cayambe - Coca Reserve was the lack of reinvestment strategy after USAID and that threatened the sustainability of the ecotourism initiative. As current challenges and proposed solutions, [5] Guerrero, (2007), highlights that the challenge was to position the forum of ecotourism in a way that facilitate achieving political, social and sustainability with increased participation and commitment on the part of public agencies as the responsive authorities. [1] Calderon-Barrios (2007), through the model of sustainable community development in the multiple uses reserve of the Lake Atitalan Watershed, in Solola, Gautemala, highlights that the benefits of the tourism are not reaching the communities even though the place is the second most visited sites. Due to lack of planning, the ecotourism has developed in an empirical and somewhat piecemeal manner and the main challenge lies in consolidating local tourisms' systems and integrating under Community Tourism Network. In Mexico vast majority of forests are privately owned by indigenous and rural communities of av. 5,000 ha/community [12] (Perdomo and Nieto, 2007). Policies for avoiding deforestation are required and yet to create benefiting the owners of the forests economically survival models are needed thus being the challenge and constraints.

Under the Forestry Incentives Program in Guatemala [12] (Revolorio, 2007), 1% of the country's regular income budget are awarded to landowners including municipalities engaged in reforestation and management of natural forests. The current challenges are to promote the supply of forest products and services and to promote efforts to legalize property titles and to increase private investment industry. In Costa Rica, a decentralized and de-concentrated management model was implemented for the National System of concentrated areas to encourage citizen participation, to control over forests, wildlife and protected wild lands [6] (Jimenez and Suarez,

2007). The current challenges are improving the financial accounting system and political and institutional commitments with legal backing as essential and required rise in awareness programs.

[13] Rodriguez (2007), in his case study of Ecuador, reveals that most of the indigenous groups possess large territories with high biodiversity, capable of producing different environmental services but traditional economies, lack of technical capacity in the indigenous organizations and internal politics make the effective implementations of largescale environmental service compensation program difficult. And he stress that the community-based tourism can overcome the lacunae. In Mexico [12] (Perdomo and Nieto, 2007), as fresh water conservative initiative, identified the need to rehabilitate the areas of domestic water supply and improve yield to traditional crops, as > 70% of the fresh water being lost through evaporation, infiltration and wasted, so drip tape technology was installed and success were shown; however, the challenges and limitations are funds that to set up Solid Trust Fund to guarantee the long-term sustainability and conservation efforts in the valley has to be considered.

Carbon sequestration at three levels were taken up [15] (Tiepolo, 2007), in Atlantic forests of Brazil as Forest Restoration, Forest Conservation and Watershed Programs on success basis but the challenges and constraints imposed were inclusion of landowner participation (in-kind donors, crucial potential benefactress-stakeholders), funding availability, implementation capacity, conservation of short term to long term goals and securing the support at all levels. Another case study through direct funding for restoration services related to water taken up in Atlantic Forest, Brazil [16] (Veiga, 2007), inclusive of sewage treatment facilities. Even municipality to pay for environmental services; however the current challenges and proposed solutions are to foster scientific studies linking forest cover and water protection (i.e., water yield and regulation) through empirical and modeling experiments and to develop models of contracts for maintenance.

IV. NEED FOR ECOLOGICAL SUSTAINABILITY IN ALBANIA COASTAL LINE THROUGH ECOTOURISM

Concurrently, awareness raising and capacity building systems are being developed and being implemented, to ensure long-term ecological sustainable impacts and effects. One such aspect is the Ecotourism for its dual role for the nation as returns in terms of money and returns in terms of sustainable ecological biodiversity. Methods methodologies model initiatives and model activities are being ensured but on limited and slow steps against vast ecological destructions already existing [10] (Malsia-Lushaj, 2012). As per the statistics of International tourism, Europe and America (industrialized countries) has tourist-generating and touristreceiving markets than the developing countries apart from some of the Nations of East Asia, Pacific, South Asia, Africa and Middle East [3] (Dabour, 2003). Ecotourism at Lalzi Bay, Albania has opportunities in many ways as:

- ⇒ As environmental education;
- \Rightarrow As revenue generation;
- ⇒ As protected area justification;
- \Rightarrow As employment;
- ⇒ As biodiversity maintenance and improvement
- ⇒ As visitor appreciation and awareness of uniqueness;
- ⇒ As cultural heritage of community based continuity;
- ⇒ As cultural exchange across the globe;
- ⇒ As sustainable and stronger economy.

"Lura" resort is located at the center of the prestigious Lalzi Bay, in the North of Durres, Albania. This area is renowned for its beautiful unspoiled virgin sandy beaches and seclusion and privacy for its Beautiful landscaped grounds, less than thirty minutes from Tirana International Airport; stunning views of the Dajti mountain range from the rear, the resort is perfectly positioned to capitalize on Albania's fast rising popularity and international prominence. One of the authors, Doçi, from Lura Ltd., with its Lura Resort, established at Lalzi Bay, North of Durres, Albania, is renowned for its still beautiful and unspoilt sandy beaches well known for its seclusion and privacy for the tourists all over the world. The location, Lura Resort with natural and introduced landscaped grounds is a thirty minutes drive from Tirana International Airport; create a time immemorial stunning views of the Dajti Mountain Range makes Lura Resort a perfectly positioned capitalization for Albania.

It seems timely, at a time of economic constraints, and a time when too many issues demand local, regional, national and international attention, to take a hard look at the evidentiary basis, current data, and future predictions surrounding the issues. Ecotourism while still at a relatively modest level of development in the region (Albania) provides opportunities as well as challenges for the conservation and sustainable wise use of biodiversity with its other natural and manmade resources. It is argued that in order to transform research on sustainable ecotourism to a more scientific level, systems perspective and an interdisciplinary approach are indispensable.

V.Lalzi Bay and Sustainable Ecotourism

[11] Martha, (2008), stress that ever since 1980s ecotourism has been felt as critical endeavor by environmentalists and hope to develop untouched human interventions for the future generations. Through a ten year project (2001 to 2010) led by [9] Bashkim Lushaj el al., (2010), has come up with a voluminous methodological document – "Challenges and opportunities for biodiversity conservation and sustainable development of ecotourism in Lalzi Bay, Durres County, Albania: Today's science for tomorrow's management'. The team initiated the study and recorded of data of various vulnerable aspects of the entire stretch of coastal region Lalzi Bay and experienced the biodiversity and other natural resources under serious threat from unsustainable exploitation

of land, soil and water by human activities with uncontrollable release of contamination, soil erosion, coastal damage, landuse changes, climatologically changes etc., namely a few.

- [4] Drumme and Moore (2005), enlists potential tourism threats which can be well applicable to Lalzi Bay Ecotouristic Industry that can be seen as:
 - ⇒ Environmental degradation;
 - ⇒ Cultural distortion;
 - ⇒ Diminished visitor experience;
 - ⇒ Industry instability;
 - ⇒ Increased control by outsiders;
 - ⇒ Economic distortions and Crowding.

However, the team of [10] Malsia-Lushaj et al., (2012), stress that ecotourism an ecologically sustainable project has a primary focus on experiencing natural areas that fosters environmental and cultural understanding, appreciation and conservation, so it is every Albanian's dream project and let not wait for someone else to do that even though the country currently undergoing economical crisis, however, appeals through the Government for technological implementations that are sound and cost oriented. The document being itself is a working document, will be used by the project partners as guidance for sustainable development of ecotourism and biodiversity management plans in the entire stretch of Lalzi Bay, Albania.

VI. CHALLENGES AND OPPORTUNITIES AT LALZI SEA BAY

According to [10] Malsia-Lushaj et al., (2012), the methodology guide with a concrete example of Lalzi Bay, Durres County, Albania will cover the fundamental natural, economic and social sciences for estuaries, coasts and marine areas and emphasis the links to the integrated and sustainable management of these areas. The outline details of the Lalzi Bay prior to 2001 and later 2010 has been enumerated in the Tables IV – XXX, that highlights the considerations taken up at every important aspects under the following sectors by Doçi (engineer-administrator): (1) Human Resource Management (HRM); (2) Territorial Reform (3) Land inventory frame work; (4) Management of air pollution emissions; (5) Water utilization systems; (6) management program (contamination and erosion); (7) Dwindling fish population and pollution; (8) Management of wild fauna and illegal hunting; (9) Social/mass mobilization and public awareness; (10) Natural forests Vs. Legislation; (11) Management of urban environment and public safety; (12) Waste management plan; (13) A system of environmental accounting and education; (14) Mandatory protocols for pollution abatement; (15) Licenses and (Mandatory/operation); (16) Faculty of technical data development; (17) Faculty of product and service policies and strategies; (18) Industrial waste management plan; (19) Traffic management plan; (20) Energy consumption/utility (industrial/urban); (21) Action plan for climate and climate change; (22) Economic upliftment of low-level community; (23) Shelter/housing for the community; (24) Biodiversity

conservation (for socio-cultural benefits); (25) Account of economic value and benefits (biodiversity conservation); (26) Neglected biodiversity conservation; (27) Sporadic management of ecotourism.

Project "Challenges and opportunities for biodiversity conservation and sustainable development of ecotourism in Lalzi Bay, Durres County, Albania" by [10] Malsia-Lushaj et al., (2012) has been developed and it is continuing in the framework. The document being a working document shall be used by the project partners as guidance for the sustainable development of ecotourism and biodiversity management plans in the region of Lalzi Bay Albania compiling serious of case studies based on observations, research and their experiences with the implementation of methodology provided as guide and guidelines. The case studies will provide examples and experiences from the practice of successes and failures of ecotourism and conservation management planning in the region of the Lalzi Bay, Durres County, Albania achieved through development of new and innovative management systems with a special focus on ecotourism-related uses on the sites.

Concurrently, awareness raising and capacity building systems are being developed and implemented, to ensure long-term sustainable impacts and effects. Environmentally sustainable investments in ecotourism sector could produce vital benefits to communities and provide an important and viable alternative to investments with positive biodiversity impacts and effects. Ecotourism model initiatives and activities are being initiated to ensure distribution of returns for conservation purposes as well as to regional and local stakeholders. For a successful sustainable development of Ecotourism, [4] Drumme and Moore (2005), suggests essential elements in a community setting as:

- ⇒ Planning;
- ⇒ Protected natural areas;
- ⇒ Financing;
- \Rightarrow Sustainable activities;
- ⇒ Education, training and partnerships.

Now the conservation of environment and its wise use for new industry, ecotourism and other purposes are becoming a more flexible on day-to-day basis, under influences of climate changing, under all contexts and performances that are reaching through utility competitive management methods, towards integrated and permanent sustainable development as fulfillment of individual obligation - a major need of present time for better future for all. As analyzed by [9] Bashkim Lushaj et al., (2010), staff of Lura resort company Ltd., (2001), a "problem tree", at Lalzi Bay has been detailed out impact/s and effect/s of poor conservation, non-restoration and unwise use of Lalzi Bay, poverty of the regional and local community and indigenous people and the lacunae being seen as few/lack of multiple goods and services for the new industry – ecotourism.

The biodiversity and the natural resources are faced with a serious threat due to unsustainable exploitation of

anthropogenic activities on one hand and their repercussion effects of pollution (of land, water and atmosphere), soil damage, soil erosion and landslides on the other has posed not-so-easy irreparable conditions along the entire stretch of Lalzi Bay, Durres County, Albania in terms of cost, time and human expertise. These coastal stretches however are one of the Albanian tourism spots that need to be replenished back to its originality - a challenge taken up by the current team. The case studies have provided, are providing and will provide examples and experiences from the practice about the factors of success and failure of ecotourism and conservation management planning in the region of the Lalzi Bay, Durres County, Albania.

[4] Drumme and Moore, (2005), opine that for a successful, sustainable Ecotourism Industry, an Ecotourism Partnerships are essential commodity as:

- ⇒ Local communities;
- ⇒ Government Agencies;
- ⇒ Non-Governmental Organizations;
- \Rightarrow Funders;
- ⇒ Ecotourists;
- ⇒ Education Sectors.

VII. CONCLUSION

The growing demand as nature-based tourism otherwise Ecotourism has sparked the interest to address the impacts of the tourism industry [4] (Drumme and Moore, 2005) yet world tourism increased by 74% in 2000 supporting 200 million jobs worldwide [18] (WTO, 2001), yet travelers seek more remote destinations and eco-friendly developments as tourist spots in a way hastening the steady and sustainable ecotourism initiatives as any country's Global Economy and Albania is making rapid strides in these 'greener lines for greener pastures'. The success shown by [10] Malsia-Lushaj, 2012 – a renowned book (based on observations, research, development, training and workshops), the authors disputed issues in Coastal Science and Management to bringing in together researchers, environmental managers, policy makers, pedagogues, and graduate students to explore collaborations, challenges and to spark new ideas, with the aim of learning and deciphering about marine/coastal/transitional systems with catches on leading-edge techniques; lastly, appreciating the constraints of the science and the management, in particular for new industry - ecotourism in Lalzi Bay, Durres County, Albania as one of the most renowned 'green and sustainable tourism of Albania' as shown in the current paper by the authors.



Fig. 1 Pre Project Scenario at Lalzi Bay, in earlier conditions



Fig. 2 Post Project Scenario at Lalzi Bay, the present status

TABLE I REGION WISE TOURISM EARNER DURING 2001 (DABOUR, 2003)

REGION WISE TOURISM EARNER DURING 2001 (DABOUR, 2003)		
Region	US \$(billion)	
Europe	230.1	
Americas	122.4	
Pacific/East Asia	82.0	
Middle East	11.2	
South Asia	4.7	

TABLE II

SALIENT FEATURES OF ECOTOURISM (ADAPTED FROM WIKIPEDIA)

Salient features of ecotourism
1. A socially responsible travel for environmental sustainability apart from
personal growth.

- 2. Cultural heritage has given of primary attraction apart from ecological, flora and fauna areas.
- 3. A tourist fosters greater appreciation for natural habitats from the biodiversity aspects.
- 4. Minimizes the negative aspects of conventional tourism on the environment and will have positive impacts on the cultural integrity of local/indigenous people.
- 5. As an integral part of ecotourism, promotion of recycling, energy efficiency and water conservation will be implemented.
 - 6. Creates economic perspectives of the local/indigenous people.
 - 7. Creates environmental and social responsibility in the travelers.
- 8. Supports Human Right and provides direct financial investments for conservation.
- 9. Waste minimization will be ensured and cuts down luxury in the utilizations.
- 10. Can actively participate in the management of ecotourism for socio-economic benefits.
- 11. As conservationists provide surplus jobs for the localities as indigenous
- 12. Supports small stakeholders to ensure investment for sustainable developments.
- 13. Discourages mass tourism and mass constructions in fragile areas of biodiversity.
- 14. For Third World Countries help in environmental protection and financial benefits.
- 15. Destiny to newer localities can be established.
- 16. Ecofriendly mentality will be inculcated.

untouched habitats.

17. Ecotourism certification program encourages the youngsters into the fields of ecology.

TABLE III PROVIDES AN OUTLOOK INTO THE POSITIVE/ NEGATIVE ASPECTS OF

ECOTOURISM (WIKIPEDIA)		
Improving sustainability		
Regulation and accreditation	Ecologically destructive green washed operations like underwater hotels, helicopter tours, and wildlife theme parks can be categorized as	
ecotourism along with canoeing, cam photography, and wildlife observation. The fa to acknowledge responsible, low-ir ecotourism puts legitimate ecotourism comp at a competitive disadvantage.		
Guidelines and education	An environmental protection for cause-and- effect will be implemented for awareness on environmental issues, and care about the places via Tour Guides.	
Small scale, slow growth and local for small scale, slow growth, and locally based ecotourism. Local peoples have a vested interest in the well being of their community, and are therefore more accountable to environmental protection than multinational corporations. The lack of control, westernization, adverse impacts to the environment, loss of culture and traditions outweigh the benefits of establishing large scale ecotourism.		
N	atural resource management	
1. Can be util ecotourism.	ized as specialized tools for the development of	
1 1	2. Abundance of biodiversity areas can be established and managed.	
Several plan	3. Several plans and opportunities can be introduced and to maintain	

Effective sustainability planning, maximum social and economic

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benefits for local communities can be provided.					staff.	
5. Minimum negative impacts on cultural heritage and minimum						
negative impacts on the environment can be done.				TABLE	V	
		Criticis			TERRITORIAL F	REFORM
-	rive impact of		l level, ecotourism has become a		ject Scenario at Lalzi Bay	Post Project Scenario at Lalzi
			ict over control of land, resources,	((earlier conditions)	Bay
Direct	+	and tourism pro		1 37		(present status)
	nental impacts		e unable to meet the infrastructure		assessment criteria for the a	Assessment criteria will be taken into account
CHVIIOIIII	ientai impacts		otourism and have to part with their		ng-term and balanced evelopment of the county	for the a long-term
		drinking water s	•		rritory is ensured;	and balanced
Local	people		estors may not support local people		assessment criteria for the	development of the
		ar	nd may displace them.	in	frastructure required for the	county territory is
Threat	ts to	U 1	ple onto marginal lands with harsh	pe	erformance of the tasks of a	ensured;
indigenou	us cultures		soils, lack of water, and infested		ounty local government	Assessment criteria will
			and disease. May do little to		tists;	be taken into account
			ivelihoods even when a proportion profits are directed back into the		assessment criteria for the	for the infrastructure
		community.	profits are directed back into the		ze of the county territory; assessment criteria for the	required for the performance of the
Mism	anagement		of the commons offers another		imber of permanent	tasks of a county local
			economic unsustainability from		sidents of the county	government exists;
			protection, in ecotourism sites		rritory;	3. Assessment criteria will
		utilized by man	-	5. No	assessment criteria for the	be taken into account
·		TABLEI	V		ensity of permanent	for the size of the
	HUMAN		v AGEMENT (HRM)		sidents in the county	county territory;
Pre	Project Scenario		Post Project Scenario at Lalzi		rritory; assessment criteria for the	Assessment criteria will be taken into account
	(earlier condi	tions)	Bay		assessment criteria for the ecessibility of the services	for the number of
			(present status)		rovided by the county local	permanent residents of
1.	No manageme	*	1. HRM plan has been		overnment;	the county territory;
2.	Lack of work f	· ·	created and	_	assessment criteria for the	5. Assessment criteria will
3.		loyees lacked, rresponsibility,	implemented; 2. Management of an	ec	conomic, geographical and	be taken into account
		training and/or	Management of an organization's		storical unity of the	for the density of
	attractive job s	-	workforce created and		rritorial local governments	permanent residents in
4.	-	ompliance with	implemented with		omprising the county; and	the county territory;
	employment ar	nd labor laws;	selection, training and		assessment criteria for the otimum establishment of the	 Assessment criteria will be taken into account
5.	Overseeing	organizational	rewarding of		rritory of the county local	for accessibility of the
	leadership and	·	employees;		overnment have been	services provided by
6.	Lack of Legal		3. Ensured compliance	_	sured, taking into account	the county local
7.		Scenario with health and poor	with labor laws; 4. HRM serves as the	th	e interests of the	government;
	mental abilities	_	company's primary		eighboring county local	7. The economic,
8.		rimary liaison	liaison with the		overnments.	geographical and
	was not the cre		employees'		k of educative programs,	historical unity of the
9.	No education	al schemes or	representatives	па	nmely: • Lack of educative	territorial local governments
	plans;		(usually a labor		facilities;	comprising the
10.	Lack of inte		union);		Lack of consultancy	county; and
		e biodiversity	5. Educational		services;	8. Assessment criteria will
	lake, fauna and	(of wetland,	plans/schemes for human beings		• Without Law	be taken into account
11	,	olicies and	resources management		enforcement;	for optimum
	strategies for e		implemented with		 Unsustainable 	establishment of the
12.	No mandator		health services at		individual	territory of the county local government has
	regulations for	coastal border	Lalzi Bay;		ranching	been ensured, taking
	policy;		6. Successful programs of		practices;Lack of trained staff.	into account the
13.	Lack of educa	tive programs,	education,		• Lack Of trained Staff.	interests of the
	namely:	-e -a	consultation and			neighboring county
		of educative	information with monitored HRM;			local governments.
facilities; • Lack of consultancy			7. Sustainable and			9. Educational
• Lack of consultancy services;		-	individual ranching			plans/schemes for
• Without Law			practices for HRM;			human beings
enforcement;			8. Monitoring and audit of			resources management
	• Unsust	-	HR with			implemented with health services at
		ividual	guideline/standards;			Lalzi Bay;
ranching		ching	9. Effective control;			10. Successful programs of
				1		* 0
	pra	ctices; f trained staff.	10. Changes in policies and strategies with trained			education,

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information for the	individual ranching 6. Effective low enforcement
Territorial Reform;	practices for Air quality; for air quality;
11. Sustainable and	8. No stipulated standards for 7. Monitoring and audit of
individual ranching	effective control; air pollution in place;
practices for	9. Lack of inputs for new 8. Sustainable and individual
Territorial Reform;	approaches; ranching practices for air
12. Monitoring and audit of	 Old policies and strategies; quality;
Territorial Reform	11. Lack of trained staff; 9. Effective control
will be with	12. Does not comply the measurement;
guideline/standards;	European Emission 10. Staff trained;
13. Effective control;	Standards. 11. Changes in policies and
14. Changes in policies and	strategies;
strategies with trained	12. Air quality under the
staff.	European emission
<u> </u>	standards.

TABLE VI

T	AND	INVENTORY FRAMEWOR	v

Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi		
(earlier conditions)	Bay		
	(present status)		
 Lack of land use inventory 	1. As framework for		
management plan;	environmental		
2. Lack of set up of land use	accounting;		
inventory system;	An application is under		
3. Land conversions into	process;		
artificial areas resulting in	3. Land use inventory		
significant deforestations;	management planned		
4. Consumption of arable land	and is implementing;		
into urban developmental	4. Set up a land use		
areas on one side and on	inventory system;		
the other angle shift in crop	5. However so far no		
patterns into orchards and	education program for		
vineyards;	land use inventory		
5. Some percent of total land	management plan is in		
taken for urban	place;		
settlements;	6. No information and		
6. Lack of educative programs	consultation processes; 7. No effective law		
for land utilization act; 7. Lack of information centers	7.7 - 7.9 - 7.2 - 7		
and lack of consultations;	enforcement; 8. No monitoring for land		
8. Lack of effective control	8. No monitoring for land use inventory		
measures what so ever:	management plan in		
9. Lack of trained staff:	place;		
10. Lack of improvements in	9. No effective control;		
policies and strategies.	10. No new mentality or no		
policies and strategies.	new approach to		
	problems;		
	11. No trained staff;		
	12. No changes in policies and		
	strategies.		

TABLE VII MANAGEMENT OF AIR POLLUTION EMISSIONS

MANAGEMENT OF AIR F	OLLUTION EMISSIONS
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi
(earlier conditions)	Bay
	(present status)
 Release of Air emissions; 	 Air pollution under
Impure Air quality in the	control;
atmosphere;	2. Minimizing and reduction
Lack of legislation for Air	of emissions in the air;
quality;	3. Legislation for air
4. Lack of implementable	pollution adequate and
approaches;	implemented.
No educative program for	4. Education programme for
Air quality;	air pollution in place;
Lack of guidelines and	Successful information
consultations;	and consultation process
7. No sustainable and	implemented;

Pre Project Scenario at Lalzi Bay (earlier conditions) 1. Lack of planning, developing, distribution and management of the optimum use of water resources and water bodies; 2. Poor water management planning against high demand and lack of supply management based on equitable satisfaction of water demands; 3. No norms fixed for the release of polluted water. Aquatic destructions recordable in the shallow marine waters, estuarine/Delta Rivers of Ishem, Erzeni and Tarini torrent; 4. Same destructive trends recordable in the shallow marine waters, estuarine/Delta Rivers of Ishem, Erzeni and Tarini torrent; 4. Same destructive trends recordable in the salt and brackish marshes as well as coastal brackish lagoons; 5. Deposition of chemical components into the receiving water bodies; 6. Decrease/impairment of aquatic flora, fauna, vegetations; 7. Improper drainage pattern; 8. Incapability's of the ruling parties posing irresolvable conservation of the biosphere reserves of all category; 9. Lack of Legislation for polluted water and lack of technologies for zero discharge; 10. Unchangeable policies and law enforcement. Post Project Scenario at Lalzi Bay (present status) 1. Planning, developing, distributing and managing the optimum use of water resources. 2. Water management planning to all the competing demands for water and seeks to allocate water on an equitable basis to satisfy all uses and demands; 3. Water resources (shallow marine waters, estuarine (delta) rivers of Ishmi, Erzen and Tarini torrent; 4. Salt and brackish marshes and coastal brackish lagoons destruction and damage identified and enlisted; 5. Drainage pattern surveyed, controlling water expansion; 6. Implementation of water pollution act. There is still inadequate legislation for water and law enforcement.	TABLE V Water Utilizati		
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polluted water and lack of technologies for zero discharge; 10. Unchangeable policies and law enforcement. 2. Successful information and consultation process are implemented; 3. Effective law	category;	legislation for water	
technologies for zero discharge; 10. Unchangeable policies and law enforcement. 20. Unchangeable policies and law enforcement. 20. Unchangeable policies and strategies. Educative program for water quality is in place; 20. Successful information and consultation process are implemented; 20. Effective law	9. Lack of Legislation for	pollution and	
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10. Unchangeable policies and law enforcement. Strategies. Educative program for water quality is in place; 8. Successful information and consultation process are implemented; 9. Effective law	technologies for zero	water quality;	
law enforcement. program for water quality is in place; 8. Successful information and consultation process are implemented; 9. Effective law	discharge;	7. Changes in policies and	
quality is in place; 8. Successful information and consultation process are implemented; 9. Effective law		2	
8. Successful information and consultation process are implemented; 9. Effective law	law enforcement.		
and consultation process are implemented; 9. Effective law			
process are implemented; 9. Effective law			
implemented; 9. Effective law			
9. Effective law		•	
		*	
enforcement for water			
		enforcement for water	

quality ensured.

TABLE IX

SOIL MANAGEMENT PROGRAM (CONTAMINATION AND EROSION)			
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi		
(earlier conditions)	Bay		
, , , , , , , , , , , , , , , , , , ,	(present status)		
1. Poor maintenance of soil.	1.Maintenance of soil quality		
Contamination typical of	with check on soil erosion;		
pesticides, oil leakage and	2.Maintenance o local		
fuel discharges from the	topography, soil stability,		
dumping sites, landfill	minimized chemical emissions		
leachate, and direct discharge	and deposits on soil;		
of industrial wastes on the	4. Waste disposal under		
soil;	control. Sterilization of mineral		
2. Measurable levels of chemical	recourses;		
compounds (hydrocarbons,	5.No raw materials and		
solvents, heavy metals);	chemicals let on to soil seepage;		
3. Sold wastes (construction	6.Minimized and control over		
debris, garbage) disposal sites	construction waste;		
directly on the soils;	7.Check on petrochemical		
4. Soil erosion due to run off	pollution from transport and		
(from heavy downpour);	fuel;		
5. Soil erosion or landslides due to	8.Changes in policies and		
slope gradient and length a	strategies;		
cause for lack of vegetative	9.Education program for soil		
cover;	quality in place;		
6. Soil erosion due to overgrazing	10.Successful information		
and deforestation;	and consultation process		
7. Irresponsibility and lack of	implemented;		
knowledge of the ruing	11.Effective law		
government in soil	enforcement; monitoring for soil		
conservation programs; 8. Lack of educative programs and	quality in place; 12.Sustainable and individual		
untrained staffs:	ranching practices for soil		
9. No effective Law enforcement	quality and effective control on		
on soil quality;	maintenance of soil quality;		
10. Lack of soil maintenance	13. Staff trained.		
strategies and policies due to	13. Sail Hamou.		
the			
11. Lack of interest in the			
politicians.			
*			

TABLE X

DWINDLING FISH POPULATION AND POLLUTION		
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi	
(earlier conditions)	Bay	
	(present status)	
1. Decrease in fish population	1. Good legislation for fishing	
blamable for over fishing and	in place;	
decreased populations;	Pollution under control;	
2. Replacement of native species	3. No over fishing and banned	
by the invasive species;	explosives;	
3. Lack of fish processing	An inventory finalized;	
industries or units;	6. Economic incentives for	
Illegal trade of fish;	sustainable fishing;	
5. Over use of fish as consumable	7. A biotic native community	
item;	of fish growing;	
6. Inadequate legalization for	8. 10 % increase in the number	
fisheries;	of fish;	
7. Lack of knowledge to	Educational plans/schemes	
implement policies and	for Lalzi Bay's fish in place;	
strategies;	Changes in policies and	
8. No educative program for	strategies;	
fisheries;	11. Education programme for	
Poor or no information centers	sustainable fishing in place;	
and consultations provided;	Successful information and	
10. No sustainable and individual	consultation process	
ranching practices;	implemented;	
11. Change in attitude and change	13. Effective low enforcement	
in policies for protective	for sustainable fishing;	

measures are not created as	14. Monitoring of fishing in
awareness programs.	place;
	Effective control;
	Staff trained.

	TABLI	F XI	
MANAGEMENT OF WILD FAUNA AND ILLEGAL HUNTING			
Pre P	Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi	
	(earlier conditions)	Bay	
		(present status)	
1.	Decreasing number of wild	1. A wildlife habitat	
	fauna and illegal hunting;	conserved with good	
2.	No preservation of wildlife	legislation for the wild	
	habitat;	fauna and hunting areas;	
3.	Illegal unsustainable and	Hunting under control;	
	unregulated hunting by	Pollution under control;	
	local, regional and	4. No illegal and irregular	
	foreigner communities;	hunting;	
4.	Pollution of air, water and	5. An inventory finalized;	
	soil limits the number of wild fauna:	Economic incentives for sustainable the wild	
5.	Invasive species replacing		
Э.	native species;	fauna and hunting; 7. A biotic native	
6.	Illegal trading of wild fauna	community of wild	
0.	especially consumable	fauna growing;	
	kinds of animals and birds;	8. 15 % increase in the	
7.	Inadequate and old	number of the wild	
	legislation for preservation	fauna (animals and wild	
	of the wild fauna and	fowls);	
	sustainable haunting;	9. Changes in policies and	
8.	No changes in policies and	strategies to the best	
	strategies.	policy;	
9.	No effective control, no	10. Educational	
	trained staff, no new	plans/schemes for Lalzi	
	mentality of wild life	Bay's wild fauna and	
10	conservation portfolios;	hunting in place;	
10.		11. Sustainability of all sorts ensured:	
	individual ranching for preservation of the wild	12. Education programme for	
	fauna and sustainable	sustainable the wild	
	hunting:	fauna (animals and wild	
11.		fowls) and hunting;	
	guidelines for protective	13. Successful information	
	act.	and consultation process	
		implemented;	
		14. Effective low	
		enforcement for	
		sustainable for	
		sustainable the wild	
		fauna and hunting.	

TABLE XII

SOCIAL/MASS MOBILIZATION AND PUBLIC AWARENESS			
Pre Project Scenario at Lalzi Ba	y Post Project Scenario at Lalzi		
(earlier conditions)	Bay		
	(present status)		
 No social mobilization; 	 New farmers, 		
Low public awareness;	landowners and		
Regional people, 1	ocal businesspersons		
community and indiger	ious enrolled;		
people lack exper	tise, 2. Farming community		
knowledge and interest	in organization and		
ecotourism policies	and network with relevant		
implementations;	government		
Unimplemented	organizations formed;		
Conservations of Ar	hus, 3. Exchange of cultures		
Ramsar and Espoo;	with better trained staff		
No education	onal and level of		
plans/schemes	for community		

- conservation and its wise use:
- 6. No common understanding regarding protected areas of land and water;
- 7. Very little progress in raising awareness among regional and local community stakeholders (regional and local community and indigenous people and sectoral interests of both in situ and ex situ;
- Lack of public participation in decision-making, and no public participation in study and management as projects;
- No common understanding in terms of conservation and its wise use:
- 10. No accessible justice in environmental matters; and
- 11. No trained staff.

- involvement increasing;
- Public participation in Lalzi Bay study and management promoted with a common, shared understanding in Lalzi Bay of its conservation and wise use with ensured positive public awareness:
- A successful information and consultation process implemented;
- 6. Positive changes in policies and strategies with ruling parties aware of the importance of biosphere reserves and conservation of all and for the sustainable development of ecotourism.
- 7. Implementations of Århus, Ramsar and Espoo Convention;
- Change in socialeconomic structure by direct impacts, such as: new employment, new technology, rising income and population structure;
- 9. Social impact assessment of Lalzi Bay implemented;
- 10. Educational plans/schemes for Lalzi Bay conservation done:
- 11. Trained staff;
- 12. Individual consciousness and oneness established.

TABLE XIII NATURAL FORESTS VS. LEGISLATION

Pre Project Scenario at Lalzi Bay		Post Project Scenario at Lalzi		
(earlier conditions)		Bay		
			(present status)	
1.	Destruction and damage of	1.	Good legislation for	
	shrubs, coppice forests,		ecotourism in biosphere	
	high forests, agricultural		reserve or protected	
	lands, pastures;		area, wetland, lake etc.	
2.	Decreasing flora,		in place;	
	vegetation, fauna and small	2.	Sustainability in	
	and big wildlife;		ecotourism;	
3.	Lack of controlling	3.	All inventories finalized.	
	measures in felling of trees;		Indigenous forests,	
4.	Missing Legislation for		coppices and shrubs	
	biosphere reserve, the		safe-guarded, planted,	
	inadequacy of legislation of		restored and protected;	
	protected areas and for	4.	Hunting under control;	
	protection of marine	5.	Forest function in water	
	environment from pollution		retention improved and	
	hazards and destruction and		erosion under control by	
	irreparable damage;		planting;	
5.	No restoration programs at	6.	Wildlife habitat and	

- Lalzi Bay;
- Lack of adequate legal and institutional regimes;
- Lack of existing biosphere reserve management and lack of protected area management plan;
- Incidences of overgrazing, fire incidences, pollution, illegal logging are still common:
- Protection status is not appropriate and consequently has never been implemented;
- 10. Lack of implementable measurements in the agricultural practices;
- Poor conservation of Lalzi Bay landscape and seascape;
- No restoration programs of meandering streams;
- 13. No flood control measurements and high erosion impact.

- woodland conserved:
- 7. 10% increase in number of animals;
- 8. Fire incidence under control;
- 9. Agricultural land protection law implemented;
- 10. Indigenous agro-practices imposed;
- 11. Check on pesticide and grazing;
- 12. No wasteland;
- 13. Increase in livestock breeding;
- 14. Terrestrial and aquatic plants/fauna improved and conserved;
- 15. Driftage and driftwoods cleaned, no noise, solid waste disposal prohibition enacted with proper processes;
- 16. Legislation for wetland conservation and its wise use in place;
- 17. Environmental impact assessment of Lalzi Bay implemented;
- 18. Lalzi Bay landscape conserved;
- 19. Seascape conserved;
- 20. Sedge and reed restored;
- 21. Sediment inflow under control with retention ponds.

TABLE XIV

MANAGEMENT OF URBAN ENVIRONMENT AND PUBLIC SAFETY			
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi		
(earlier conditions)	Bay		
	(present status)		
1. Noticeable change in	 Change in population 		
population development,	arising from the		
and their consequential	development, and		
environmental effects	consequential		
inclusive o public health	environmental effects,		
and safety measures;	including urban		
2. No demographic profile	environment, public		
plan and uncontrollable	health and safety		
migration in the local as	managed by regional		
well as regional areas;	and local government;		
No sense and spatial pattern	Demographic		
of metropolitan growth;	management plan		
4. Poor public health and	created and		
services;	implemented;		
No changes in policies and	Migration under control;		
strategies.	Studies on natural		
No education program for	increase;		
demographic management;	5. Studies on age and sex		
7. No effective law	structure created and		
enforcement in individual	implemented;		
practices for the	6. Trained staff		
demographic management;	implemented;		
No trained staff;	7. Studies on the spatial		
No effective control;	pattern of metropolitan		
No new mentality;	growth created and		
11. No new approachability to	implemented;		
the problems;	8. Changes in policies and		

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12.	No changes in the policies	strategies etc.;
	and law.	Education program for
		demographic
		management in place;
		Successful information
		and consultation process
		implemented;
		10. Effective law
		enforcement;
		11. Monitoring for the
		demographic
		management in place;
		12. Sustainable and
		individual practices for
		the demographic
		management
		implemented;
		13. Effective control.
		13. Effective control.

TABLE XV WASTE MANAGEMENT PLAN			
Pre P	Post Project Scenario at Lalzi		
(earlier conditions)		Bay	
		(present status)	
1.	No waste management	Waste management	
	plan;	implemented;	
2.	No concept for	2. Plan created and	
	implementation of	implemented;	
	integrated solid waste	3. A good concept for	
	management plan;	implementation of	
3.	No waste management	Integrated Waste	
	plan and on new strategy	Management;	
	to engage rural community or trained urban as job	4. New waste strategy that engage the total	
	initiatives:	community;	
4.	Both human wastes and	5. Successful waste and	
	animal wastes need	recycling systems set up	
	management;	and dependent on	
5.	No improvements in	relationships and	
	hygiene levels.	partnerships;	
6.	No advancement in	6. Human and animal	
	science and technology in	activities generate	
_	relation to waste.	different kinds of wastes,	
7.	Pollution and global	as domestic, commercial,	
	warming awareness is lacking;	industrial, municipal, and agricultural wastes under	
8.	No education program for	control;	
0.	SWM.	7. Successful information and	
9.	No trained staff;	consultation process	
10.	No changes in policies and	implemented; hygiene	
	strategies.	levels under control;	
11.	Waste monitoring	8. Advancement in science	
	strategies are neglected;	and technology in	
12.	Lack of new mentality and	relation to waste;	
	concepts among people.	9. Monitoring of pollution	
		and global warming, pollution and global	
		pollution and global warming under control;	
		10. Changes in policies and	
		strategies etc.;	
		11. Education program for	
		solid waste management	
		in place;	
		12. Effective law enforcement;	
		13. Monitoring for waste	
		management in place;	
		sustainable and	
		individual practices for	
		the waste management	

implemented;
Effective control;
Staff trained etc.

$TABLE\,XVI$

A 3131EM OF ENVIRONMENTAL ACCOUNTING AND EDUCATION		
Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi B	

A SYSTEM OF ENVIRONMENTAL	ACCOUNTING AND EDUCATION
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi Bay
(earlier conditions)	(present status)
No environmental	Target period planned and
accounting plan and no	implemented;
implementation;	2. Scope of calculations
•	*
2. Target period not	planned and implemented;
implemented.	3. Environmental
No scope for such aspects;	conservation cost and
Not planned for	standards for measuring
environmental	environmental
conservation and	conservation cost planned
standards for measuring	and implemented;
environmental	4. Environmental
conservation cost:	conservation benefit and
5. Ruling government fail to	standards for measuring
6 6	2
understand fail to impose;	environmental
6. No educative programs and	conservation benefit
consultations;	planned and implemented;
No effective control and no	Items and standards for
new mentality;	measuring the economic
No trained staff;	benefit associated with
9. No effective law	environmental
enforcement;	conservation activities
10. No items and standards for	planned and implemented;
measuring the economic	6. Changes in policies and
benefit associated with	strategies etc.;
environmental	ē .
	7. Education programs for
conservation activities	environmental accounting
unplanned and	in place;
unimplemented;	8. Successful information and
Environmental	consultation process
conservation cost and	implemented;
standards for measuring	Effective law enforcement;
environmental	10. Monitoring for
conservation cot	environmental accounting
unplanned and	in place;
unimplemented.	11. Effective control;
ummpremened.	12. Staff trained etc.;
	13. Managing of pollution,
	0 0 1
	contamination, damages
	etc. by monitoring, audits
	and controls planned and
	implemented;
	Education program for
	managing of pollution,
	contamination, damages
	etc. by monitoring, audits
	and controls in place;
	15. Successful information and
	consultation process;
	16. Effective law enforcement
	with monitoring done.
	with monitoring done.

TABLE XVII

MANDATORY PROTOCOLS FOR POLLUTION ABATEMENT

MANDATORT I ROTOCOESTOR I GEECTION ABATEMENT		
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi	
(earlier conditions)	Bay	
	(present status)	
 No stipulated Norms 	 Target period planned and 	
for pollution of	implemented;	
contamination, damage	Scope of calculations	
and erosion etc.;	planned and	
2. No audits and no	implemented;	

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controls;			Environmental		
No implement	ntation and		conservation co	st and	
inadequate	legislation		standards for me	easuring	
for mana	ging of		environmental		
pollution			conservation	cost	
contaminatio	on;		planned	and	
No educatio	n program		implemented;		
for mana	ging of	3.	Environmental		
pollution;			conservation bene	efit and	
No effect	ive law		standards for me	easuring	
enforcement;	;		environmental		
Non-sustaina	able and		conservation	benefit	
individual	ranching		planned	and	
practices for	managing		implemented;		
of pollut	ion by	4.	Items and standar	rds for	
monitoring,	audits and		measuring the ec	conomic	
controls;			benefit associate	d with	
7. No	effective		environmental		
monitoring,	for new		conservation a	ctivities	
approaches	and new		planned	and	
problems;			implemented;		
No trained st		5.	<i>C</i> 1	es and	
No changes	•		strategies; etc.		
and strategie	S.	6.	Education program	ms for	
			environmental		
			accounting in place		
		7.	Successful informat		
				process	
		_	implemented;		
		8.	Effective law enfor		
			monitoring	for	
			environmental		
			accounting in place	e;	
			Effective control;		
			Staff trained etc.;	11	
		11.		ollution,	
				lamages	
			etc. by monitoring		F
			and controls plans implemented;	ned and	
		12		m for	
		12.	Education progra managing of po		
			contamination, d		
			etc. by monitoring	_	
			and controls in pla		
		13	Successful informat		
		13.	consultation proce		
		14	Effective law enforce		
			Monitoring for	-	
		13.	pollutants,	an	
			Ponumits,		

TABLE XVIII I ICENSES' AND PERMITS (MANDATORY/ORDERATION)

contaminations etc.

place.

LICENSES AND LERWIT	S (MANDATORY/OPERATION)	
Pre Project Scenario at Lalzi	Post Project Scenario at Lalzi Bay	
Bay	(present status)	
(earlier conditions)		
No education program for operational licenses and permits to carry out activities and no effective law enforcement:	Quasi all activities with operational licenses and permits needed for carrying activities out approved by central, regional and/or local governments.	
No information and consultation process;	Quasi all activities with operational licenses and	
No monitoring for operational licenses and permits needed for	permits approved and implemented and/or implementing in place;	

- carrying activities out etc. in place;
- 4. Non-sustainable and individual ranching practices for operational licenses and permits needed for carrying activities out;
- No operational licenses and permits needed to carry out activities as guidelines and standards;
- 6. No new mentality or no new approach to problems;
- 7. No trained staff;
- No changes in policies and strategies.

- Implementation and inadequate legislation for operational licenses and permits needed for carrying activities out;
- Changes in policies and strategies etc.;
- Education program operational licenses and permits needed for carrying activities out in place;
- 6. Successful information and consultation process;
- 7. Effective law enforcement; monitoring for operational licenses and permits needed for carrying activities out etc. in place;
- 8. Sustainable and individual ranching practices for operational licenses and permits needed for carrying activities out implemented;
- Operational licenses and permits needed for carrying activities out guideline values and standards planned and implemented;
- 10. Effective operational licenses and permits needed for carrying activities out approved and implemented;
- 11. Staff trained etc.

TABLE XIX FACULTY OF TECHNICAL DATA DEVELOPMENT

Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi Bay	
(earlier conditions)	(present status)	
1. Sporadic and low level of	1. Normal level of the	
the technological	technological development	
development;	in place;	
2. Old and oldest	2. Sustainable technological	
technological	development;	
development; no changes	Natural increase;	
in policies and strategies;	Age and sex structure;	
No education program for technological	5. The spatial pattern of metropolitan growth;	
development in place;	6. Changes in policies and	
4. No information and	strategies etc.;	
consultation process;	7. Education program for	
5. No effective law	technological development	
enforcement;	in place;	
6. No monitoring for	8. Successful information and	
technological	consultation process;	
development in place;	Effective law enforcement;	
7. Non-sustainable and	10. Full investments for	
individual practices for	technological	
technological	development;	
development;	Monitoring for technological	
8. No effective control and	development in place;	
no trained staff;	12. Sustainable and individual	
No changes in policies and strategies;	practices for technological development;	
10. Missing or poor	13. Effective control;	
investments for	14. Staff trained etc.	
technological		
development;		
A		

11. No new mentality or no

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new approach to problems.	
	LE XX
	RVICE POLICIES AND STRATEGIES
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi Bay
(earlier conditions)	(present status)
1. No good developing and	1. Education program for
adoption of the product	developing and adoption
and services policies and	of the product and
strategies;	services policies and
2. With poor mentality	strategies in place;
policies and strategies;	2. Successful information and
3. Politicians and local	consultation process;
communities unaware of	3. Effective law enforcement;
the importance; 4. Lack of sustainable	4. Monitoring for developing
	and adoption of the
development and changes as and when felt	Product and
*** ***** *****	policies and strategies in
mandatory especially in	place; 5. Sustainable and individual
the biosphere reserve or protected area;	practices for developing
5. No education program for	and adoption of the
developing and adoption	product and services
of the product and	policies and strategies;
services policies and	6. Effective control:
strategies in place;	7. New mentality or new
6. No information and	approach to problems;
consultation process and	8. Staff trained;
no effective law	9. Changes in policies and
no criective law	5. Changes in policies and

enforcement

7. No effective control;

No trained staff;

strategies.

No new mentality or new

approach to problems;

10. No changes in policies and

sustainable

practices;

and no

individual

strategies etc.;

strategies;

strategies;

11. Positive

12. Politicians

the

10. A good developing and

adoption of the product

and services policies and

and

mentality in policies and

communities unaware of

importance

developing and adoption

and

change

of

relationships and	that engage the total
partnerships;	community;
Industrial activities	Successful waste and
generate different kinds	recycling systems set up
of industrial wastes and	and dependent on
no information and	relationships and
consultation process;	partnerships;
6. Increase in hygiene levels	5. Industrial activities generate
not implemented;	different kinds of wastes,
7. Lack of advanced science	that are under control;
and technology;	6. Successful information and
8. No education program for	consultation process
industrial waste	implemented;
management;	Hygiene levels under control;
9. Lack of effective law	8. Advancement in science and
enforcement;	technology in relation to
10. Non-sustainable and	industrial waste;
individual practices for	9. Monitoring of industrial
the industrial waste	pollution and global
management.	warming, industrial
e e e e e e e e e e e e e e e e e e e	pollution and global
	warming under control;
	10. Changes in policies and
	strategies etc.;
	11. Education program for solid
	waste management in
	place;
	12. Effective law enforcement;
	13. Monitoring for waste
	management in place;
	14. Sustainable and individual
	practices for the waste
	management implemented;
	management implemented,

TABLE XXII		
TRAFFIC MANAGEMENT PLAN		
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi	

driving

(earlier conditions)

and

1. Poor traffic management

lacks

15. Effective control;

Bay

control;

(present status)

1. Vehicle pollution under

16. Staff trained etc.

	of the product and services policies and strategies; 13. A sustainable developing and adoption of the product and services	strategies; 2. Limit of persons per vehicle not followed and misuse of public transportation with higher levels of noise pollution;	No old or oldest vehicles using too many people; People wanting vehicles with normal seats as they require; Maintained vehicles:
	policies and strategies;	3. Poorly designed/planned	Good driving habits;
	14. Changes in policies and	cities that require	6. Normal periodic motor
	strategies etc.	commuting;	vehicle inspection;
		4. Emissions no under control	Emissions under control;
		and no changes in policies	8. Normal level of motor
	LE XXI STE MANAGEMENT	and strategies as and when	vehicle emissions etc.;
	1	required;	9. Education program for
Pre Project Scenario at Lalzi	Post Project Scenario at Lalzi Bay	5. No new mentality and no	vehicle pollution control
Bay	(present status)	new approach to the	in place;
(earlier conditions)		problems;	10. Successful information and
1. No or poor industrial	Industrial waste management	6. No education program for	consultation process;
waste management plan;	plan implemented.	traffic management in	Effective law enforcement;
2. No new waste strategy	Industrial Waste	place;	12. Monitoring vehicle
that should engage the	Management Plan created	No information and	pollution control in
total community;	and implemented;	consultation process;	place;
No trained staff;	2. A good concept for	8. No effective law	13. Sustainable and individual
4. No successful industrial	implementation of	enforcement;	practices for vehicle
waste and recycling	Industrial Integrated Waste	9. No monitoring for traffic	pollution control;
systems that can be	Management;	management in place;	14. Effective control;
dependent on	3. New industrial waste strategy	10. Non-sustainable and	15. Staff trained etc.

individual	practic	es for
traffic ma	anagemei	nt and
overall	no e	ffective
control.		

TABLE XXIII

I ABLE XXIII ENERGY CONSUMPTION/UTILITY (INDUSTRIAL/URBAN)			
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi Bay		
(earlier conditions)	(present status)		
1. Low production and bad	Normal production and		
actions in consumption of	good consumption of		
energy by local and	energy.		
regional communities;	2. Wise use by public of		
2. Unwise use by public of	production and		
production and	consumption of energy;		
consumption of energy;	3. Good designed cities that		
3. Use of high lights, noises,	require commuting;		
vibrations from all	4. Production and		
activities;	consumption of energy		
4. Poorly designed cities that	under control;		
require commuting. 5. Production and	5. Changes in policies and		
5. Production and consumption of energy no	strategies; 6. New mentality or new		
under control;	approach to problems etc.;		
6. No changes in policies and	7. Education program for		
strategies; no new	production and bad		
mentality or no new	consumption of energy in		
approach to problems;	place;		
7. No education program for	8. Successful information and		
production and bad	consultation process;		
consumption of energy in	Effective law enforcement;		
place;	10. Monitoring for production		
8. No consultations and no	and bad consumption of		
effective law	energy in place;		
enforcement.	11. Sustainable and individual		
9. No monitoring for	practices for production		
production and bad	and bad consumption of		
consumption of energy in	energy;		
place;	12. Effective control;		
10. Non-sustainable and	13. Staff trained etc.		
individual practices for production and bad			
consumption of energy.			
consumption of energy.			

TABLE XXIV

ACTION PLAN FOR CLIMATE AND CLIMATE CHANGE

Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi Bay	
(earlier conditions)	(present status)	
1. No any action plan for	1. Climate change and	
adaptation so far;	adaptation implemented;	
2. Emissions by	Emissions by	
anthropogenic activities	anthropogenic activities	
and natural phenomena of	and natural phenomena of	
greenhouse gases affect	greenhouse gases affect	
the heat balance of the	the heat balance of the	
Earth, and Lalzi Bay too	Earth, and Lalzi Bay too	
with the resulting changes	with the resulting changes	
in precipitation patterns,	in precipitation patterns,	
rising sea temperatures,	rising sea temperatures,	
extremes and society	extremes and society	
levels affect how	levels affect how develops	
develops;	under adoption;	
3. Not yet actions plan with	2. An action plan with	
adjustments;	adjustments to them;	
No education program for	Education program for	
climate change and	climate change and	
adoption in place;	adoption in place;	
No or poor information and	Successful information and	
consultation process.	consultation process;	

- 6. No effective enforcement;
- 7. No monitoring climate change in place;
- 8. Non-sustainable individual practices for climate change control;
- 9. No effective control.
- 5. Effective law enforcement;
- 6. Monitoring for climate change in place; Sustainable and individual climate practices for change control;
- 7. Effective control etc.

TABLE XXV

ECONOMIC UPLIFTMENT OF LOW-LEVEL COMMUNITY Pre Project Scenario at Lalzi Bay Post Project Scenario at Lalzi Bay

,	,
(earlier conditions)	(present status)
1. Low basic and services	 Low level of the economic
employment;	base-indirect of Lalzi Bay
2. Labor supply and demand	community;
are in contrast between	A good basic and services
them;	employment;
3. Negative local and non	Labor supply and demand
local trend for economic	are in good ration between
base-direct;	them;
4. No education program and	4. Positive local and non local
poor information	trend for economic base-
strategies;	direct.
5. No effective law	Education program for
enforcement;	economic base-direct in
6. No monitoring on	place;
economic base-direct in	6. A good information and
place;	consultation process;
7. Non-sustainable and	effective law enforcement;
individual practices for	7. Monitoring on economic
economic base-direct	base-direct in place;
control;	sustainable and individual
8. No effective control and	practices for economic
low non-basic service	base-direct control;
provider;	Effective control; etc.
9. No education program for	9. Level in growing in
economic base-indirect	economic base-indirect of
in place;	Lalzi Bay community;
10. No or poor information	10. Growing of the non-basic
and consultation process;	and services employment;
11. No effective law	11. Labor supply and demand
enforcement;	are in good ratio between
12. No monitoring on	them;
economic base-indirect	12. Positive local and non local
in place;	trend for economic base-
13. Non-sustainable and	indirect;
individual practices for	13. Education program for
economic base-indirect	economic base-indirect in
control.	place;
	14. A good information and
	consultation process;
	effective law enforcement;
	15. Monitoring on economic
	base-indirect in place;
	Sustainable and individual
	practices for economic
	base-indirect control;
	16. Effective control etc.

TABLE XXVI

SHELTER/HOUSING FOR THE COMMUNITY		
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi Bay	
(earlier conditions)	(present status)	
1. Low level in growing of	 A good level in growing of 	
the housing for	the housing for Lalzi Bay	
community;	community;	
2. Labor supply and demand	Growing of the housing for	
is in contrast between	the Lalzi Bay community;	

	,
them;	3. Labor supply and de
3. Negative local and non	are in good ratio bet
local trend for housing for the community;	them; 4. Positive local and non
4. No information and	trend for housing for
consultation process;	Lalzi Bay community:
5. No effective law	5. Education program
enforcement;	housing for the Lalzi
6. No monitoring for housing	community in place;
for the community in	6. A good information
place;	consultation pro
7. Non-sustainable and	Effective law enforcer
individual practices for housing for the	 Monitoring for housing the Lalzi Bay comm
housing for the community;	in place;
8. No effective control.	8. Sustainable and indiv
	practices for housing
	the Lalzi Bay commun
	Effective control etc.
	EXXVII
Pre Project Scenario at Lalzi Bay	FOR SOCIO-CULTURAL BENEFITS) Post Project Scenario at Lalzi
(earlier conditions)	(present status)
1. Lacks wise use for	Taking into account of the status of th
effective utility	social-cultural values
competitive management	benefits of

- 3. Labor supply and demand are in good ratio between them;
- 4. Positive local and non local trend for housing for the Lalzi Bay community;
- 5. Education program for housing for the Lalzi Bay community in place;
- 6. A good information and consultation process; Effective law enforcement;
- 7. Monitoring for housing for the Lalzi Bay community in place;
- 8. Sustainable and individual practices for housing for the Lalzi Bay community;

Post Project Scenario at Lalzi Bay (present status)

ABLE XXVII

	(**************************************	(4.1.1.1.1.1.1.1.1.1)
1.	Lacks wise use for	 Taking into account of the
	effective utility	social-cultural values and
	competitive management	benefits of the
	of site and at the same	conservation of
	time not taken into	biodiversity and wise use
	account the economic	of the Lalzi Bay for
	value of sustainable	effective utility
	development of the	competitive management
	ecotourism;	of site and at the same
2	No utilization of traditional	time taking into account
2.		ē
	socio-cultural knowledge	the economic value of
	for biosphere reserve,	sustainable development
	protected area, lake,	of the new industry,
	wetland etc. conservation,	ecotourism in the Lalzi
	and its wise use;	Bay;
3.	Lacks protective areas and	Utilization of traditional
	eco-sensitive areas not	cultural knowledge for
	listed;	biosphere reserve or
4.	No education program for	protected area, lake,
	utilization of traditional	wetland etc. conservation,
	cultural knowledge and	and its wise use;
	values;	3. Socio-cultural progress by
5.	No information and	use of utility competitive
	consultation process;	management methods
6.	No effective law	towards the sustainable
	enforcement;	development of
7.	No any monitoring for the	ecotourism, which
	traditional social-cultural	recognizes the needs of
	values in place;	everyone;
8.	8. No effective control.	4. Growing of former
٠.	of the effective control.	civilization; use of
		cultural values of regional
		and local communities
		and indigenous peoples;
		5. Grow of material value as
		sacred sites; taking into
		account of the social-
		cultural impact
		assessment of Lalzi Bay;
		6. Taking into account of the
		livelihood impact
		assessment of the Lalzi
		Bay etc.;
		7. Education program for

utilization of traditional cultural knowledge and
values in place;
8. No information and consultation process;
Effective law enforcement; monitoring for the traditional social-cultural
values in place; 10. Effective control etc.

TABLE XXVIII ACCOUNT OF ECONOMIC VALUE AND BENEFITS (BIODIVERSITY

CONSERVATION)		
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi Bay	
(earlier conditions)	(present status)	
1. Not taken into account of	1. Rationality on developing	
any sort. The value of	of the financial	
economic sustainable	mechanism to increase	
development of	income of biosphere	
ecotourism not yet	reserve;	
realized;	2. Wise use of economical	
2. Poverty poses the financial	knowledge for the	
mechanism to increase the	biosphere reserve or	
income of some of the	protected area, wetland,	
biosphere reserve,	lake etc.;	
protected area, wetland,	New alternative income	
lake, etc.;	generation for farmers,	
3. Money generation through	landowners and	
taxes, incentives, tourism	businessmen. new	
income, donors, etc by	opportunities for jobs;	
use of utility competitive	 Provision of multiple goods 	
management methods not	and services of high	
done;	economic values;	
4. The lack of financial	conservation and its wise	
resources for effective	use;	
administration;	5. Grow the income to support	
5. Lack of multiple goods and	future sustainable	
services of high economic	ecotourism; medium	
values;	human development	
6. No knowledge of the	index (human	
economic impacts of	development index	
biosphere reserve,	increasing by 2-3 times more the before); a	
protected area, lake and wetland conservation and	livelihood impact	
its wise use:	assessment of Lalzi Bay	
7. No economical impact	implemented;	
assessment. Low level	6. Change in regional and	
employment at Lalzi Bay	local living conditions by	
and revitalization	indirect impact, such as:	
programs not done for	inflation, new	
locals;	opportunities, health	
8. Lacks labor market	change, etc.;	
characteristics;	7. Promotion of the coalition	
Unsustainable economic	and revitalization of the	
development makes local	regional and local	
and nonlocal trends	community; economic	
increasing;	impact assessment of	
9. Persistence in labor	Lalzi Bay implemented;	
unemployment. No	8. Educational plans/schemes	
strategies;	for Lalzi Bay's economy	
10. Low human development	in place.	
index.		

TABLE XXIX

NEGLECTED BIODIVERSITY CONSERVATION

NEGLECTED BIODIVERSITT CONSERVATION		
Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi Bay	
(earlier conditions)	(present status)	
1. Old and no changes in	1. A good conservation of	

- policies and strategies for biodiversity conservation;
- Ruling Government lack understandings of the importance of conservation of the biosphere reserves, protected areas, rejuvenation of wetland, lake and marsh:
- 3. Lacks investment policies;
- Lack of legislation for conservation of biodiversity;
- No conservation infrastructure. Lacks education schemes;
- 6. No effective law enforcement for biodiversity conservation;
- 7. No monitoring for biodiversity conservation in place;
- No effective control for biodiversity conservation.

- biodiversity in Lalzi Bay;

 2. Good legislation for biodiversity conservation in the biosphere reserve or protected area, wetland, lake etc. in place;
- 3. Changes in policies and strategies for conservation of biodiversity;
- Politicians, regional and local communities understand the importance of biodiversity conservation in biosphere reserve or protected area, wetland, lake etc. and sustainable development of the ecotourism into;
- Full investment policy regarding the biodiversity conservation by national, regional or local government;
- Implementation of the utility competitive management of conservation of biodiversity in Lalzi Bay;
- 7. The sustainable development of biodiversity conservation in Lalzi Bay by new mentality or new approaches to problems;
- 8. Educational plans/schemes for Lalzi Bay's biodiversity conservation in place etc.
- Education programs for conservation of biodiversity in place;
- 10. Successful information and consultation process implemented;
- 11. Effective law enforcement;
- 12. Monitoring for conservation of biodiversity in place;
- 13. Effective control measures done.

- ecotourism with fewer infrastructures;
- 6. No sustainable development of ecotourism;
- No effective law enforcement for sustainable development of ecotourism;
- No monitoring for sustainable development of ecotourism in place and no effective control for sustainable development.
- ecotourism is in normal conditions, jointed and often within flawed with real assumptions and arguments;
- 4. Changes in policies and strategies;
- 5. politicians, regional and communities understand the importance conservation of the biosphere reserve. protected area. wetland, lake etc. and at the same time sustainable development of the ecotourism into;
- 6. Full investment policy regarding the sustainable development of ecotourism and biodiversity conservation by national, regional or local government:
- 7. Implementation of the utility competitive management of ecotourism in Lalzi Bay;
- The sustainable development of ecotourism in Lalzi Bay by new mentality or new approaches to problems:
- 9. Educational plans/schemes for Lalzi Bay's Ecotourism in place:
- 10. A good role of sustainable development of ecotourism in promoting socioculture.

TABLE XXX SPORADIC MANAGEMENT OF ECOTOURISM

Pre Project Scenario at Lalzi Bay	Post Project Scenario at Lalzi
(earlier conditions)	Bay
	(present status)
1. Missing of policy and strategy	1. Wise use and
of ecotourism in biosphere	sustainable
reserve, protected area, lake,	development of the
and wetland;	new industry,
2. No investment to increase	ecotourism in Lalzi
reception/accommodation	Bay.
capacities;	Good legislation for
3. Fails to attract ecotourists. The	sustainable
debate on sustainable	development of
development of ecotourism is	ecotourism on the
patchy, disjointed and often	biosphere reserve or
flawed with false assumptions	protected area,
and arguments;	wetland, lake etc. in
4. Politicians and local	place;
communities need education	3. The debate on
in this regard;	sustainable
5. Low level of adventurous	development of

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