IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 2, October 2022
Impact Factor: 6.252

Hospitality Versatility Around the Globe A Case Study on Environmental Sustainability in Hospitality Industry in Jordan

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Abstract: *Design/methodology/approach –Basically the research is Conceptual type but the empirical survey was carried. The researcher has adopted the descriptive research method for this study Data collection : Primary and Secondary data collection was made, from Questionnaire journals, surveys, text books, magazines etc.,*
Findings – From our research we are here to conclude that the environmental sustainability can be achieved through rural urban connectivity is vital for the balanced growth on both rural and urban side..

Keywords: Hotel Industry, Food Service, Hospitality

I. INTRODUCTION

Today's Industrial growth in India is tremendous and showing an accelerating trend, since the enactment of economic liberalization policies in 1991. Economic liberalisation had a great impact on industrial units exclusively on manufacturing units, because the growth of this sector is magnificent over the time periods that is pre-liberalisation period to post liberalisation i.e., increase in the presence of manufacturing units, from 98,379 in a pre-liberalization period of 1987 to 1,40,355 industrial units in 2021 reflecting a 42.67% growth during this 20 year period, and a rise in the production capacity and output within individual manufacturing facilities. In this paper we try communicate the environment sustainability that can be adopted in Urban industries by Linking the rural and urban areas in solid waste management by supplying organic manure and waste / recycled water in turn expecting the quality production and increased supply of agricultural products to urban & prevent the exploding waste management issues in the urban areas in order to reap the mutual benefit on both sides.

Environment Sustainability means
To define environmental sustainability we must first define sustainability
Sustainability is the ability to continue a defined behavior indefinitely. To define what environmental sustainability is we turn to the experts.
In the general insinuation, the maintenance of the factors and practices that contribute to the quality of environment on a long-term basis can be termed as environmental sustainability.
Herman Daly, one of the early pioneers of ecological sustainability, looked at the problem from a maintenance of natural capital viewpoint. In 1990 he proposed that:
[For pollution] The rates of waste generation from projects should not exceed the [1] of the environment (sustainable waste disposal);
Environmental sustainability is the rate of renewable resource harvest, pollution creation, and non-renewable resource depletion that can be continued indefinitely. If they cannot be continued indefinitely then they are not sustainable.

The Three Pillars of Sustainability
The principle of The Three Pillars of Sustainability says that for the complete sustainability problem to be solved all three pillars of sustainability must be sustainable. The three pillars are social sustainability, environmental sustainability, and economic sustainability.

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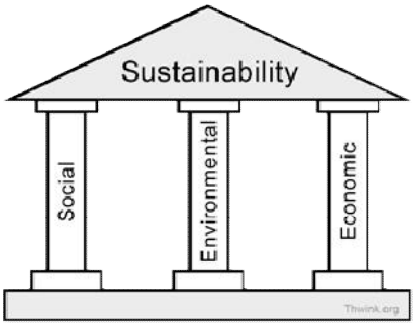

Social Sustainability

In this today's scenario the environment has now become a major constraint on human progress. The fundamental importance is social sustainability .Redclift (74 -76) claims that poverty education is the primary goal of sustainable development . "Hunger men focus on food" rather than on environment awareness. Henceforth poverty education has to come from qualitative development, from redistribution and sharing from population stability and from community sociality rather than from throughput growth.

Economic Sustainability

Economic sustainability means the stability of economic capital , the widely accepted definition of economic sustainability "maintenance of capital" or keeping capital intact, has been used by accountants. Since the middle ages to enable merchant traders to know how much of their sales receipts they and their families could consume without reducing their capability to continue trading. Thus Hicks[1] definition of income-"the amount one can consume during a period and still be as well off at the end of the period". Economic sustainability paves way for traders to look at the environment.

Environment Sustainability

It is needed by humans and originated by social concerns Es itself seeks to improve human welfare by protecting the sources of raw materials used for human needs and ensuring that sinks for human wastes are not exceeded in order to prevent harm to humans. Humanity must learn to live within the limitations of the biophysical environment.

Stages of Ethical consciousness in Business

1. Law of the jungle

In this stage business were run on brute strength business decisions were driven by the philosophy of "might makes right"

2. Anything for profit

At this stage they had only one goal i.e., profit. Ethical consciousness strongly believes that anything goes as long as one does not caught by the law or by the customer

3. Profit maximizing in the short term

In this stage business believed that "good business is good ethics". The main aim of the business in this stage was to maximize profits within the constraints of law.

4. Profit maximizing in the long term

There is a shift in focus from 'business' to 'ethics'. At this stage companies created the post of an ethical officer to supervise the ethical aspect of the business.

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5. Stakeholder concept

In this stage the companies focus on profits as well as on economic mission. In this stage business objectives included profit sharing, development of community service projects and philanthropy.

6. Corporate citizenship

At this stage it proposes the high level of ethical consciousness and redefines the mission of business in society. They would seek to achieve certain social objectives such as [2], participating in job creation, employing handicapped people and self realization of employees as well as financial success of the company.

II. OBJECTIVES OF RESEARCH

Trigger for this article - Water consumption and demand in Urban and Rural

The demand for water both in Urban and rural areas gives us an interesting inference. The demand for water in rural areas is 40 lpcd which is less than 3 times the demand for Urban areas where the requirement is 135 lpcd. And 83% of the water requirement for the rural areas is from agriculture.

Based on this data, if we can have efficient water recycling methodologies to reuse even 30% of the urban water this will satisfy the demand for the agriculture requirement in rural areas. Also it has been practically proved that nearly 70 percent of the water used in households can be treated using simple technologies, if required at multiple levels, and be reused for agriculture use.

Over the last decade, India's strong growth has increased employment opportunities and allowed millions to emerge from poverty.

India's remarkable [3], however, has been clouded by a degrading environment and growing scarcity of natural resources. Mirroring the size and diversity of its economy, environmental risks are wide ranging and are driven by both prosperity and poverty.

In a recent survey of 178 countries whose environments were surveyed, India ranked 155th overall and almost last in air pollution exposure. The survey also concluded that India's

environmental quality is far below all BRIC countries [China (118), Brazil (77), Russia (73), and South Africa (72)]. Also, according to another recent WHO survey, across the G-20 economies, 13 of the 20 most polluted cities are in India. Simultaneously, poverty remains both a cause and consequence of resource degradation: agricultural yields are lower on degraded lands, and forests and grasslands are depleted as livelihood resources decline. To subsist, the poor are compelled to mine and overuse the limited resources available to them, creating a downward spiral of impoverishment and environmental degradation.

But does growth – so essential for development – have to come at the price of worsened air quality and other environmental impacts?

Three striking features for my research on this area

First, Environmental sustainability could become the next major challenge as India surges along its projected growth trajectory

Second, A low-emission, resource-efficient greening of the economy should be possible at a very low cost in terms of GDP growth. While a more aggressive low-emission strategy comes at a slightly higher price tag for the economy it promises to deliver greater benefits.

Third, For an environmentally sustainable future, India needs to value its natural resources, and ecosystem services to better inform policy and decision-making

What can be done?

A low-emission, resource-efficient greening of the economy should be possible at a very low cost in terms of GDP growth. A more aggressive low-emission strategy comes at a slightly higher price tag for the economy while delivering greater benefits

Emissions reduction would have a minimal impact on GDP which would be offset by savings through improving health while substantially reducing carbon emissions.

- A 10% particulate emission reduction will lower GDP only modestly. GDP will be about $46 billion lower in

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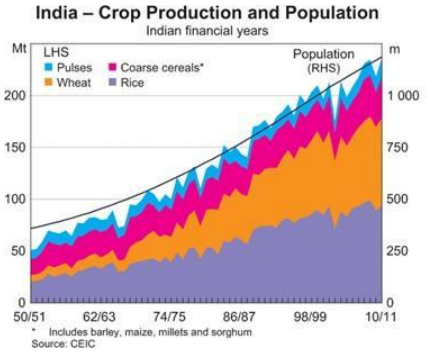
2030 due to interventions, representing a loss of 0.3 % compared to business as usual.

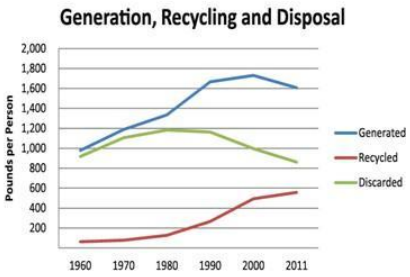
- A 30% particulate emission on the other hand reduction will lower GDP by about $97 billion, or 0.7 %.
- GDP growth rate will be negligibly reduced by about 0.02 to 0.04% in both scenarios. There will be significant health benefits under both scenarios which will compensate for the projected GDP loss.
- The savings from reduced health damages will range from $105 billion in the 30% case and by $24 billion with a 10% reduction.
- Under these scenarios, another important benefit would be a substantial reduction in CO2 as a co-benefit which has a potential of being monetized.

Importance of Waste Management for Environment Sustainability

In recent decades, there has been remarkable growth in agricultural production, with increases in food production across the world since the beginning of the 1960s. Since then, aggregate world food production has grown by 145%. In Africa it rose by 140%, in Latin America by almost 200% and in Asia by 280%. The greatest increases have been in China, where a fivefold increase occurred, mostly during the 1980s–1990s. In industrialized countries, production started from a higher base; yet it still doubled in the USA over 40 years and grew by 68% in Western Europe (FAO 2005).

Over the same period, world population has grown from three billion to more than six billion, imposing an increasing impact of the human footprint on the Earth as consumption patterns change. Again though, per capita agricultural production has outpaced population growth for each person today, there is an additional 25% more food compared with in 1960. These aggregate figures, however, hide important regional differences. In Asia and Latin America, per capita food production increased by 76 and 28%, respectively.. These agricultural production gains have lifted millions out of poverty and provided a platform for rural and urban economic growth in many parts of the world.





In 1960, we generated 88 million tons of waste and recycled 6 percent of it (5.6 million tons). In 2011, we generated about 250 million tons of waste and recycled and composted about 87 million tons of it, for a recycling rate of 35 percent. But while we are recycling more, we are also generating more than we did in 1960. How much of this increased generation can be attributed to population growth? If you take population into account, we find that individuals are recycling more and throwing away less than they did in 1960. Solid waste generation peaked in the year 2000.

Sources of Solid Wastes

Solid waste problems in developing countries are aggravated by the malfunctioning of traditional waste management systems due to rapid development and concentration of a growing population. The below table summarizes the Solid waste generated from various sources and the environmental impacts it creates.

Sources	Typical Waste Generators	Components of Solid Waste
Residential	Single and multifamily dwellings	Food wastes, paper, cardboard, plastics, textiles, glass, metals, ashes, special wastes (bulky items, consumer electronics, batteries, oil, tires) and household hazardous wastes
Commercial	Stores, hotels, restaurants, markets, office buildings	Paper, cardboard, plastics, wood, food wastes, glass, metals, special wastes, hazardous wastes

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Institutional	Schools, government centre, hospitals, prisons, colleges, schools, temples, churches etc.	Paper, cardboard, plastics, wood, food wastes, glass, metals, special wastes, hazardous wastes
Municipal Services	Street cleaning, landscaping, parks, beaches, recreational areas etc.	Street sweepings, landscape and tree trimmings, general wastes from parks, beaches and other recreational areas

Environmental Impacts

	Landfill	Composting	Incineration	Recycling	Transport
Air	Emissions of methane (CH4) and carbon monoxide (CO) odours	Emissions of methane (CH4), and Carbon Monoxide (CO) odours	Emissions of SO2, NOX, HCL, HF, NMVOC, CO, CO2, N2O, Dioxins, furans, heavy metals (Zinc, Lead, Copper, Arsenic	Emissions of dust	Emissions of dust, NOX, SO2, release of hazardous substances from accidental spills
Water	Leaching of salts, heavy metals, biodegradable and persistent organics to ground water	N/A	Deposition of hazardous substances on surface water	Wastewater discharge	Risk of surface water and roundwater contamination from accidental spills
Soil	Accumulation of hazardous substances in soil	N/A	landfilling of ashes and scrap	Land filling of final residues	Risk of soil contamination from accidental spills
Landscape	Soil occupancy, restriction on other land uses	Soil occupancy, restriction on other land uses	Visual intrusion; restriction on other land uses	Visual intrusion	Traffic
Ecosystem	Contamination and accumulation of toxic substances in food chain	Contamination and accumulation of toxic substances in food chain	Contamination and accumulation of toxic substances in food chain	N/A	Risk of contamination from accidental spills
Urban areas	Exposure to hazardous substances	N/A	Exposure to hazardous substances	Exposure to hazardous substances	Risk of exposure to hazardous substances from accidental spills, traffic

Waste management Issues in Urban Areas Solid Waste Management Department:
Headed by a Superintendent Engineer, the department looks after removal of solid waste which is a major responsibility of the Corporation. Everyday 4500 MT of garbage is collected and removed from the city. Night conservancy is being carried out in all important roads and commercial areas of the city. Door to door collection of garbage is prescribed in all zones.

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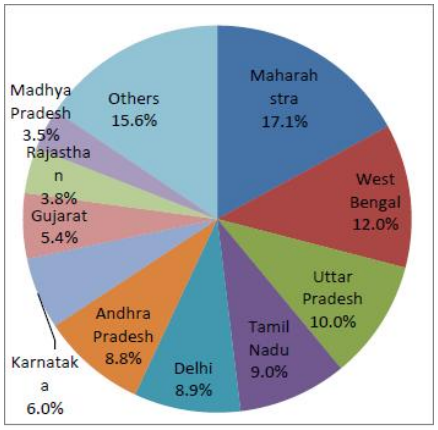

Figure 5, Share of States and Union Territories in Urban MSW Generated

Composition Physical

Food waste	8.00 %
Green waste	32.25 %
Timber(wood)	6.99 %
Consumable plastic	5.86 %
Industrial Plastic	1.18 %
Steel & Material	0.03 %
Rags & Textiles	3.14 %
Paper	6.45 %
Rubber & Leather	1.45 %
Inerts	34.65 %
Chemical Analysis	
Moisture Content	27.60 %
PH Value	7.68
Organic Content	39.06 %
Carbon content	21.53 %
Nitrogen Content	0.73 %
Phosphorus P2 O5	0.63 %
Potassium K 2 O	0.63 %
Waste Generation By Category:	
Residential	68 %
Commercial	16 %
Halls, Schools, Institutions	14 %
Industrial	2 %
Hospitals & Clinics	Separately disposed of by Hospitals.

Waste Disposal

At present Open dumping and partly covering with debris. For remediation of the existing Landfill or scientific closure, International Expression of Interest were called and the developers were short-listed and the Request For Proposal is under preparation.

Number of Disposal Sites : Two

Dumping Ground: Kodungaiyur

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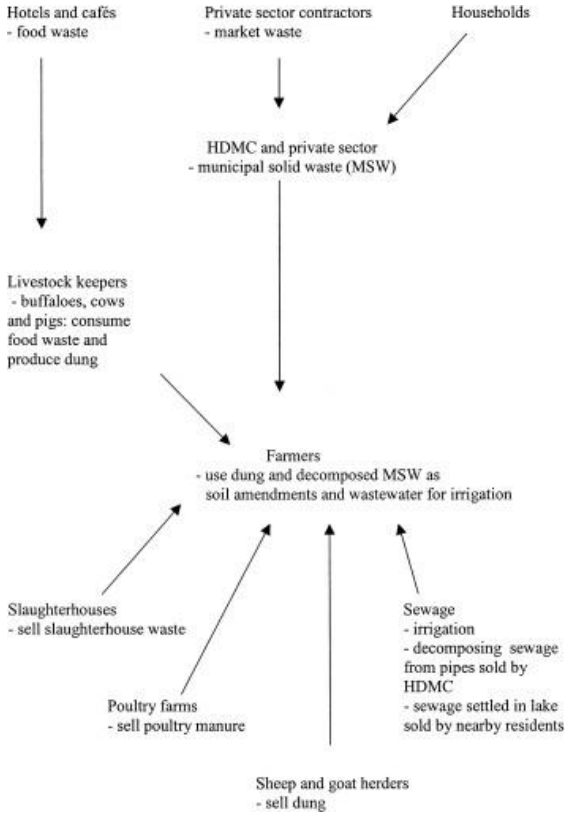
Location	Kodungaiyur
Extent	Area around 200 acres.
Total number of years in use	30 Years
Neighborhood	Within one K.M (are in existence)
Daily Waste disposed	2100 to 2300 M.T
Perungudi	
Location	Perungudi
Extent	Area around 200 acres .
Neighborhood	Within 0.5 KM (formed after dumping)
Number of years in use	25 years
Daily waste disposed	2200 tons to 2400 MT

Methods of Solid Waste Treatment

Generally solid waste can be segregated into following types :

1. Compostable waste – Organic food peels, trimmings, dried leaves, leftover food, etc that can be composted to give rich , nutritious soil
2. Recyclable waste – Paper, plastic packaging, glass, metals, aluminum foil, etc which, if cleaned and processed properly could be re-used.
3. Partially recyclable / recoverable waste – Most of the E-waste we generate from chargers, to used batteries and other electronic goods falls into this category. If separated and recycled properly, a small –moderate portion of the raw materials that go into the making of these goods can be recovered like metals and precious metals.
4. Reusable material – Due to rapid urbanisation, every city in India is now in the midst of a construction spree. All the construction debris that is generated (sand, cement, iron and steel girders bricks) if stored separately can be reused in other construction activities.

The below model communicates the method of fulfilling the Agricultural needs of the Rural from the Urban waste



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III. RESEARCH METHODOLOGY

Environment sustainability mainly concerned on the companies and public opinion and the analysis on the internal and external factors on the same. Respondents are asked with open end as well as close ended questionnaires and their opinion were collected. Secondary data was also collected.

3.1 Research Instrument

Research work was carried out by administering questionnaires. In survey method open end as well as close ended questionnaire with likert ranking scale is the instrument frequently used and yields the most satisfactory results.

3.2 Sampling Plan

The study was mainly focused on how environmental sustainability can be achieved in urban as well as rural areas so, the framework mainly focused on methods and companies who were willing to implement it.

3.3 Sampling size

The sample size of the research is 50, which is based on the open population residing in Chennai and maximum part of it are in and around Chettipedu.

3.4 Sampling Technique

The survey was conducted on 50 units. Since the purposive selection of particular units was involved Deliberate sampling was carried out. In that the sampling technique involved in this survey was Convenient Sampling.

Tools used for analysis:

1. Percentage analysis
2. Correlation analysis
3. Regression analysis

IV. FINDINGS

From the above tables it is inferred that:

Table -1 infers that Majority of the respondents feels that waste management is a primary key for environmental sustainability

Table-2 infers that Most of the respondents are satisfied with method of waste collection Table-3 infers that Most respondents feels waste management through urban rural

connectivity is reliable

Table-4 infers that funding risk is high in this structure Suggestions

Green growth is necessary. With the cost of environmental degradation at US $80 billion annually, or equivalent to 5.7% of GDP in 2009, the environment could become a major constraint in sustaining future economic growth. Further, it may be impossible or prohibitively expensive to clean up later.

Green growth is affordable. Model simulations suggest that policy interventions such as

environmental taxes could potentially be used to yield positive net environmental and health benefits with minimal economic costs for India.

Green growth is desirable. For an environmentally sustainable future, India needs to value its natural resources, and ecosystem services to better inform policy and decision-making

especially since India is a hotspot of unique biodiversity and ecosystems.

Green growth is measurable. Conventional measures of growth do not adequately capture the environmental costs, Therefore, it is imperative to calculate green Gross Domestic Product (green GDP) as an index of economic growth with the environmental consequences factored in.

V. CONCLUSION

From the above mentioned transferring methods of waste water and organic manure forms there are a number of barriers hindering the recycling of water and treating solid waste into widespread use. Water recycling and solid waste can be significantly cheaper than alternative sources of new water supply, source of manure though the initial investment costs and transportation cost can be high. Construction costs for these facilities are often borne by a single

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entity (e.g., water agency, municipality) even if benefits are provided to many water users through reduced pollution and increased water supply and also the need for compost. Better valuing and quantifying of these benefits (both direct and indirect) can play a large role in garnering support and securing funding for recycling programs. Existing funding sources should be targeted at expanding the availability of recycled water and organic waste to agricultural consumers.

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