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MESSAGE FROM THE VICE-CHANCELLOR ................................................................. 4
EDITOR’S NOTE ........................................................................................................... 5
ARTICLES ....................................................................................................................... 6

ASSESSMENT OF NUTRITIONAL STATUS AMONG THE LODHA WOMAN IN VILLAGE OF PASCHIM MEDINIPUR:
AN EMPIRICAL STATISTICAL ANALYSIS ................................................................ 6
Sunita Bera & Dr. Santanu Panda ................................................................................ 6
TREND IN INTELLECTUAL PROPERTY GENERATION AND DISPOSAL OF IP APPLICATIONS .......................... 27
Prantik Roy & Dr. Jayanta Ghosh .............................................................................. 27
ROMANTIC RELATIONSHIPS: THE CASE OF SPECIAL COURTS UNDER POCSO ACT OF 2012 .................. 37
Shivam Pandey & Somabha Bandopadhay ............................................................... 37
SHIELDING THE UNREGISTERED MARKS: A JUDICIAL ANALYSIS ............................ 43
Atish Chakraborty ..................................................................................................... 43
BOOK REVIEW ........................................................................................................... 44
NEWS AND ANNOUNCEMENTS ................................................................................. 44
Message from the Vice-Chancellor

The NUJS Journal of Regulatory Studies has been conceived as a premier journal for publication of research in the field of law and public policy. In an increasingly data driven world, public policy oriented research centred on thorough theoretical concepts with the analysis of empirical data is imperative. This journal aims to provide a platform for innovative researchers whose data driven research creates knowledge that is conducive to the creation of long term strategies and goals for policymakers in India and abroad.

The Centre for Regulatory Studies, Governance and Public Policy (CRSGPP) actively engages stakeholders for the formulation, analysis and oversight of public policy. This journal reflects the ethos of CRSGPP and reflects its commitment to democratic values, academic excellence and legal research of contemporary relevance.

The Journal presently publishes articles on issues of national and international relevance in consonance with the aforementioned objectives. I hope that CRSGPP continues to enlighten the legal fraternity, policymakers as well as members of the public as it continues its journey of excellence and innovation.

-Prof. (Dr) N.K. Chakrabarti
Editor’s Note

The NUJS Journal of Regulatory Studies started its journey in 2016 to promote legal research focusing on policy formulation. In 2019, the journal gets a new dimension with the priority inclusion of cutting edge empirical research papers from across Asia.

The new board of editors accompanied by a robust peer review team gives the journal the much needed international status. Additionally, the new shape of this open access online journal authorizes the access of the entire edition as a single file.

The journal explores through its research papers the various challenges and highlights various human rights issues. The platform of NUJS Journal of Regulatory Studies provides the young minds to find solutions beyond convention and also gives the right impetus to the centre to explore avenues to recommend such policy formulation to the concerned forum.

I am really thankful to the authors for such vivid contribution. I also take this opportunity to thank the esteemed members of the Advisory Board, Editorial Board, Peer Reviewers and my entire team who has worked relentlessly to finish the work in time.

-Dr Shambhu Prasad Chakrabarty

Head and Centre Coordinator
Assessment of Nutritional Status among the Lodha Woman in village of Paschim Medinipur: An empirical statistical analysis

Sunita Bera & Dr. Santanu Panda

Abstract

Tribes constitute about 10% of the total Indian population. They are found in most parts of the country and are generally economically deprived. Tribe is a social group speaking a distinctive language or dialect and possessing a distinctive culture, mainly living in hilly areas and forest areas. The Lodhas are treated as one of the denitrified communities by the Central Government and now treated as a Particularly Vulnerable Tribal Groups in West Bengal. In West Bengal, Lodhas are mainly concentrated in the districts of Paschim (West) Medinipur and Jhargram. In the pre-Independence period they were treated as a Criminal Tribe till the revocation of the Criminal Tribes Act in 1952. Nutrition is the science that deals with the digestion, absorption and metabolism of food, i.e. the utilization of food in the body. It may be defined as the science that interprets the relationship of foods to the functioning of living organism. It includes the intake of food, liberation of energy, elimination of wastes and all the processes of synthesis essential for maintenance, growth and reproduction. Anthropometric measurement helps in the assessment of nutritional status and physical growth. Health and nutrition, particularly in the tribal societies, is intimately connected with forest. It has been reported in various studies that the tribals who are living in remote areas have a better health status and more balanced food than those living in less remote and depleted forest areas. (Chaudhuri, 1986). The purpose of this study was to evaluate the nutritional status of Lodha women. This study design was a questionnaire-based cross-sectional study. The study revealed that dietary intake of tribal women is poor than those of their adult male counterpart. The study conducted 71 Lodha woman in a remote village of Paschim Medinipur. According to Kuppur’s swami Scale the socio-economic status is Upper Lower (IV) class. The prevalence of thinness among the study women was 1.41% severe thinness, 8.45% moderate thinness, 43.66% mild thinness. The study conclude that The Lodhas are more back warded tribal populations than other
tribal group and they are also socio-economically back warded compared to other population groups. The average intake of all nutrients was lower than the ICMR standards. So, in connection with anthropometric variable of tribal women also found lower than the ICMR standards.

**Keywords:** Lodhas. ICMR standards, health, nutrition

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**Introduction**

In Greek ‘Tribe meant their geographical division.’ Tribe is a social group speaking a distinctive language or dialect and possessing a distinctive culture, mainly living in hilly areas and forest areas. In the remote past, they were hunter and food gatherers. A person is identified as a member of tribal (scheduled tribes) on the basis of the prescribed lists of scheduled tribes as per the scheduled tribes lists (Amendment) order 1976 issued by president of India. A member of a ST can profess any religion.

Several studies conducted on various tribal population living in different parts of India have reported them to be socially and economically disadvantaged groups and their diets to be nutritionally deficient (Singh and Rajyalakshmi, 1993; Mishra et al., 2002; Taneja and Saxena, 1998; Murugesan and Ananthalakshmi, 1991). Tribal living style differs place to place and also differs from the general population and further they live in dense forests and near to nature. It is obvious that food problems and habits of different tribes are bound to be different from those living in urban areas.

The tribes of India comprise about 8% of the total population of the country having probably the largest number of tribal communities in the world (Topal and Samal, 2001). Bhils constitute the third largest tribal group of India, next to Gonds and Santhals. They are also one of the largest schedule tribes of Rajasthan and constitute 44.50% of the total tribal population of Rajasthan (Bhasin et al., 2007). Limited data are available on anthropometric and body composition characteristics and nutritional status of tribal population of India (Bisai et al. 2008; Bose and Chakraborty, 2005; Bose et al., 2006; 2007).

Biologically, an adult is a human being that has attained reproductive age. In human context, the term adult has additional meanings associated with social and legal concepts; a legal concept for a person who has attained the age of maturity and is therefore regarded as independent, self-sufficient and responsible. Major characteristics of adulthood are the “settling-down age”, reproductive age, problematic age, period of emotional tension, period of social isolation, time of value change, time of adjustment to new lifestyle, creative age and time of commitment.

**LODHAS**

The Lodhas are now treated as one of the denitrified communities by the Central Government. In West Bengal, Lodhas are mainly concentrated in the districts of Paschim (West) Medinipur and Purba (East) Medinipur. In the pre-Independence period they were treated as a Criminal Tribe till the revocation of the Criminal Tribes Act in 1952. In the first Census of India after Independence, the Lodhas were recorded as a
scheduled caste and their total population was returned to be 8,346 only in West Bengal (Mitra 1953: 89). According to the Census of 1951 the Lodhas were found to be distributed in the districts of Burdwan, Birbhum, Bankura, Midnapore, Hooghly, Howrah, 24 Parganas, Calcutta, Murshidabad and Jalpaiguri. In 1951, they were not found in the North Bengal districts like Nadia, Maldah, West Dinajpur, Darjeeling and Cooch Behar. In the same Census the total number of Lodhas in erstwhile Midnapore was 7040, that is 84.3 percent of the then total population of Lodhas in West Bengal. (Ibid: 89-90). The Lodhas of Midnapore are said to be identical with Savaras and Sahars but in Orissa they are different. They marry young but they do not practice widow remarriage or divorce. Their traditional occupation is collection of jungle produce, but in Midnapore they also work as agricultural labourers and firewood collectors and sellers (Ibid: 77) The Census of 1981 shows that the total population of the Lodhas including the Kharias and the Kherias of West Bengal was 53,718. The Lodhas were concentrated in erstwhile Midnapore District and their total number according to the Census of 1981 was 16,534. Besides West Bengal, they are also found in the Mayurbhanj and Baleswar districts of Orissa. Originally, they inhabited hilly rugged terrains covered with jungle. Their mother tongue is Lodha, which is close to Savara, an Austro-Asiatic language. They are fluent in Bengali. Traditionally, they were forest dwellers but now they have started cultivation either as owners of land or as agricultural labourers and are also engaged in hunting and fishing. More than 80 percent of them follow Hinduism with traditional belief in spirits and nature (Mandal, H.et.al. 2002:32) At present the Lodhas do not live exclusively in the forest covered areas, but have spread out in other deforested regions where they are found to be working as agricultural and non-agricultural labourers. But their main economy is still based on collection of minor forest products, such as leaves for preparing leaf-plates for sale. According to Bhowmick, the Lodhas were found to collect edible roots and fruits for household consumption and sell the surplus in the local markets. They are also found to be engaged in the collection of tussore cocoons and sell them in the market for cash. Lodhas also catch snakes and lizards and sell their hides and consume the flesh of these animals. They also catch fish and tortoises from the water bodies for domestic consumption as well as for sale. Women among less privileged communities in India (Bhowmick, 1981: 6).

Dietary energy intake is not adequate to compensate their heavy physical work load. The National Nutrition Policy (1993) advocates a comprehensive intersect oral strategy for alleviating all the multi-faceted problems of malnutrition and its related deficiencies and diseases. While malnutrition is prevalent among all segments of the population, but women are highly affected by malnutrition because their nutrients intake level is low, beside this they have several duties to be performed such as childbearing, child rearing and other domestic duties etc.
In tribal area especially, tribal women are sufferer in all type of condition. Because they have lack of knowledge, lack of availability, poor economic condition and their geographical condition are responsible for their poor nutritional status. Thereafter when they go through the period of pregnancy and lactation their nutritional status become more poor because of the increased requirement of nutrients specially iron, calcium, energy, protein and vitamin A etc. during these period. Women with poor health and nutrition are more likely to give birth to low weight infants. They are also likely to be unable to provide adequate food and proper care for their children (Chatterjee, 1990 and Desai, 1994). Food, which provides our body all the nutrients such as carbohydrates, fat, protein, vitamins, minerals and water, does influence our health status.

Nutrition is the science that deals with the digestion, absorption and metabolism of food, i.e. the utilization of food in the body. It may be defined as the science that interprets the relationship of foods to the functioning of living organism. It includes the intake of food, liberation of energy, elimination of wastes and all the processes of synthesis essential for maintenance, growth and reproduction. The fundamental activities are characteristics of all living organism from the simplest to the most complex plant and animals.

Body requires different nutrients in a varying proportion so as to maintain proper body functions. By the time we reach adulthood, particularly in terms of height and body stature, stops to a certain extent. Is to thus that there is not much of apparent growth but the, the breakdown and repair of body tissues go on continuously even among adults. Therefore, adequate amounts of all the essential nutrients need to be provided to adults through their diets for maintaining both physical and mental health.

The consumption of a wide variety of nutritious food is important for women’s health. Adequate amounts of protein, fats, carbohydrate, vitamins and minerals are required for balanced diet. Meat, fish, eggs and milk as well as pulses and nuts, are rich in protein. Green leafy vegetables are rich in a source of iron, folic acid, vitamin C, β-carotene, riboflavin and calcium. Many fruits like amla and guava are good sources of vitamin C. Bananas are rich in carbohydrates, papayas, mangoes, and other yellow fruits contain β-carotene, which is converted to vitamin A. Vitamin A is also present in milk and milk products, as well as egg yolks (Gopalan et al., 1996).

Malnutrition has been defined (Jelliffe, 1996) as a pathological state resulting from a relative or absolute deficiency or excess of one or more essential nutrients, this state being clinically manifested or detected only by biochemical, anthropometric or physiological tests. Malnutrition increases the risk of mortality and morbidity. Nutritional profile of tribal’s is low as compared to the national average. Few studies have revealed the pathelic situations with regard to chronic energy and micro nutrient deficiencies
among tribal communities (DGHS, 1996; NFHS, 2002).

In a country like India, women face serious health problems due to socio-economic, environmental conditions, nutrition and gender discrimination. Diet and health are synonymous with the well-being of an individual. In absence of proper and adequate nutrition, a person can develop several developmental malformations. Many research studies (Bahl et al., 1994; Jain, 1999 and Babitha, 2003) have documented that malnutrition affects body growth and development. Nutrition is an important complement of physical fitness program. Good nutrition is not only important to help improve performance but also promote healthy dietary practices in the long term (Jonnaalagadda et al., 2001).

The physical well being and maintenance of normal health of an individual is closely related to the status of nutrition. Proper nutrition keeps man healthy and fit where as inadequate or improper nutrition reduces fitness and causes susceptibility to disease. Nutritional status refers to the intake of nutrients and their utilization (Bera, 2004). The need for assessment of the nutritional status is to identify individuals or the community at risk due to malnutrition and to provide nutritional aid. Food is a pre-requisite not only for attaining good health but also for maintaining adequate growth and body equilibrium. The choice of food is deeply related to life style of an individual and the conditions, in which she is living. However the food habits are greatly influenced by thoughts, beliefs, notions, traditions and taboos of the society. Apart from these socio-cultural barriers, the religion, education and economic factors are the determinates of the food pattern of an individuals in a given society. That is why the food patterns are bound to vary from a one society to other, one area to other and so on. Life cannot be sustained without adequate nourishment. Man needs adequate food for growth, development and healthy life.

Dietary habits of populations in different regions of the world have been determined mainly by the availability of foods locally grown and which are in practice in this particular area. Man has involved his habitual dietary pattern to maintain good health, perhaps after a good deal of trial and error. Satisfaction of hunger is usually the primary criteria for adequate food intake for sustaining healthy and active life. But diets should be planned on sound nutritional principles.

Man needs a wide range of nutrients to perform various functions in the body and to lead a healthy life. The nutrients include proteins, fat, carbohydrate, vitamins and minerals. These nutrients are chemical substances which are consumed daily are classified as cereals, legumes, nuts and oil seeds, vegetables, fruits, milk and milk products and flesh foods (fish, meat and poultry). Most of the foods contain almost all the nutrients in various proportions, some foods being rich in certain nutrients. Depending on the relative concentration of these nutrients, foods are classified as protein rich foods, carbohydrates rich foods and fat rich foods etc. some foods provide only a single nutrient as in the case of sugars
which are source of only carbohydrates while oils, ghee etc. provide only fat.

Nutrition is responsible for the nutritional status of an individual person. Good nutrition and malnutrition are directly linked to the nutritional status of a person.

Nutritional status must take into account the state of the body before and after experiments, as well as the chemical composition of the whole diet and of all material excreted and eliminated from the body. Nutritional status can be measured in four ways: Anthropometric measurement, dietary intake, biochemical and chemical examination.

Anthropometry refers to the measurement of the human individual. As an early tool of physical anthropology, it has been used for identification, for the purposes of understanding human physical variation, in pale anthropology and in the various attempts to correlate physical with racial and psychological traits. Anthropometric measurements are frequently used to diagnose malnutrition in clinical settings. The standard values given by national centre for health statistics will be used to calculate anthropometric measurements. Anthropometric measurement helps in the assessment of nutritional status and physical growth. The anthropometric measurement is influenced by different factors like religion, social, cultural background, customs, and dietary habits, biological and genetic influences. Adult growth associated with poor intake of all nutrients due to improper dietary habits, make as women at high risk for anaemia and nutritional deficiency status.

Anthropometry offers a reliable method to assess the nutritional status of the women. It is the single most universally applicable, inexpensive and non invasive method available to assess the size, proportion and composition of human body. The physical well being and maintenance of normal health of an individual is related closely to his status of nutrition. Life cannot be sustained without adequate nourishment. Man needs adequate food for normal growth and development and maintenance of body tissues.

Nutrition is the science that deals with the digestion, absorption and metabolism of food, i.e. the utilization of food in the body. Proper nutrition keeps man healthy and fit whereas inadequate or improper nutrition reduce fitness and causes susceptibility to diseases (Bhardwaj and Kapoor, 2007). Therefore, nutrition is responsible for the nutritional status of an individual person. Good nutrition and malnutrition are directly linked to the nutritional status of a person. The anthropometric measurements influenced by different factors like religion, social, cultural background, customs, dietary habits, biological and genetics influences.

Anthropometric and nutritional characteristics are related to genetics, environmental, socio-cultural conditions and to lifestyle, health and functional status. This makes it difficult to give standard interpretation of their values. Anthropometry is an essential tool in geriatric nutritional assessment to evaluate underweight and obesity conditions, which are both important risk factors for severe
diseases (Jensen and Rogers, 1998; Visser et al. 1998).

The BMI shows the relation between a person height and weight and can be used to indicate whether the person has a normal weight or if she is underweight or overweight. BMI can also be called the Quetelet index. It is important to note that BMI is not actually a measurement for the percentage of body fat, and is not applicable to everybody (e.g. persons with a large muscle mass or body builders). The BMI table that is being used for adult is not applicable to children and teenagers.

BMI is simple index of weight for height that is commonly used to classify underweight, overweight and obesity in adults. It is define as the weight in kg divided by square of the height in meters (kg/m²). For example, an adult whose weight is 70 kg and height is 1.75 m will have a BMI of 22.9. BMI values are age independent and the same for both sexes. However, BMI may not correspond to the same degree of fatness in different populations due, in part, to different body proportions. The health risks associated with increasing BMI are continuous and the interpretation of BMI grading in relation to risk may differ for different populations. BMI is an important index in evaluating the state of health of the population. BMI was recommended as the basis for anthropometric indicators of thinness and overweight (Rolland Cachera,1993). The term ‘underweight’ in adult assessment has been applied to individuals of low body weight relating to height, generally expressed in terms of BMI. BMI was found useful for the assessment of the current or short duration malnutrition among adults (Reddy and Rao, 2000). It is used as a measure of underweight and Chronic Energy Deficiency (CED) (James et al. 1988; Ferro luzzi et al., 1992). Vary low BMI reflects low fat and fat free mass, which is typical of CED. The condition of low BMI in adults (also terms as ‘thinness’), which results in CED, can be graded on the basisof BMI into mild thinness (BMI< 18.49 > 17.0), moderate thinness (BMI<16.99 > 16.0) and Severe thinness (BMI < 16.0). BMI in the range of 18.5 to 24.99is considered as normal and individuals above a BMI of 25 are categorized as overweight. Although adults nutritional status can be evaluated in many ways (Lohmann et al., 1988), the body mass index (BMI) is most widely used because it’s use is inexpensive, non-invasive and suitable for surveys (Ulijaszek and Kerr, 1999).

**Forest, Health and Nutrition:**

Health and nutrition, particularly in the tribal societies, is intimately connected with forest. It has been reported in various studies that the tribals who are living in remote areas have a better health status and more balanced food than those living in less remote and depleted forest areas. (Chaudhuri, 1986; Chaudhuri et. Al. 1989; Chaudhuri, 1991)

In the Report of the Roy Burman Committee on Forest and Tribals, it has been noted that, “It has been possible for the tribal community to subsist for generations with a reasonable standard of health because forest provided their food such as fruits, tubers, leafy vegetables, shoots, honey,
flowers, juices, grass, game, fish, etc. “Medicinal herbs and plants which they have been using for treatment of diseases and maintaining health are today the source of modern medicine. In two recently completed studies (Chaudhuri, 1991) related to tribal health, it has been noted the various roots and tubers available in the forest or small animals they can hunt supply a more balanced nutritional status of the tribals, but due to deforestation as most of the roots and tubers are not available in many areas, the health and nutrition have been affected. Again, in many cases, it has been noted that certain diseases may be common in certain areas but remained controlled due to certain food habits based on vegetation available locally. Forest helps to maintain a balanced ecosystem in nature and supplies sufficient food to the people who depend on it. So any type of degradation in the forest environment is likely to affect the balance and thereby adversely affecting the concerned population.

Relation between anthropometry and nutritional status
The relative merits of anthropometric measurements commonly used in nutrition surveys and the interrelationship between the various measurements were assessed using data obtained on 71 adult women surveyed in some tribal areas.

Anthropometry and nutrition are interrelated and include genetic and environmental characteristics, socio-cultural conditions, functional status and health. The evaluation of anthropometry is an essential part of nutritional assessment to determine the level of malnutrition, overweight and obesity. It also denotes the loss of muscle mass, gain of fat mass and redistribution of adipose tissue. These anthropometric indicators have been used to evaluate the prognosis of both acute and chronic disease in adults and assist to guide, medical intervention in the elderly.

It has been demonstrated that anthropometric measurements are highly reliable in determining nutritional status in comparison with other, more sophisticated methods (hydrodensitometry, dilution techniques and electronic bioimpedance), the use of which is restricted by their complexity and cost.

Why Anthropometry Is Important To Study Of Nutritional Status
Anthropometry (the use of body measurements to assess nutritional status) is a practical and immediately applicable technique for assessing nutritional status of populations as an expression of the magnitude and distribution of under-nutrition. Anthropometric indicators are less accurate than clinical and biochemical techniques when it comes to assessing individual nutritional status. In many field situations where resources are severely limited, however, anthropometry can be used as a screening device to identify individuals at risk of under-nutrition, followed by a more elaborate investigation using other techniques.

Dietary intake is necessary to compare dietary data with established standard like the allowances recommended by the Indian Council of Medical Research (ICMR) nutrient expert group (2010) and
is provides general impression regarding the nutritional adequacy of the diet since the Recommended Dietary Allowances (RDA) includes margin of safety a person not consuming 100 percent of all the nutrients and should not be considered malnourished without the support of biochemical, clinical and anthropometric data.

Dietary intake of women is poor than those of their adult male counterpart. Chronic malnutrition continues to exist extensively, especially among women of different age groups, because they are caught in the sequence of ignorance, poverty, inadequate nutritious food intake and diseases. Finally, a women health affects the household economic well being and a woman with poor health will be less productive in the labour force (Rao, 2010).

**Literature Review**

A national level study has been done by Das & Bose in 2012, at different state of India on Nutritional deprivation among Indian tribal: A cause for concern, ….their study revealed that Since nutritional status is intricately linked with dietary habits as well as the ecology of the population, further research should be undertaken to investigate, in details, these factors. Each tribal population has its unique food habits (Mandal 2002). Moreover, there are distinct inter-tribal differences in the environment in which they reside, i.e. the ecology of the population (Lee & Nieman 2003). The studies reviewed here did not deal with these factors as they were beyond the scope of study. It is, therefore, imperative that future studies on tribal populations include these parameters when investigating their nutritional status. Similar studies should also be undertaken among other tribal populations in India, since they constitute a sizeable portion of India’s population. Moreover, since under-nutrition has several underlying causes (Medindia 2012; Lee & Nieman 2003), future investigations should aim at identifying the likely cause(s) of high rates of under-nutrition among Indian tribal populations. To overcome this problem, there is an immediate requirement for appropriate steps to be taken to improve the nutritional status of these groups on the basis of severity of the burden they are facing. [12]

The nutrition and health problems faced by Kannikar tribal women of Trivandrum district, Kerala in normal physiological conditions like pregnancy and lactation were studied. pulses, milk and milk products and other animal foods which were the sources of protein were lacking on their diets. Average calorie consumption as found to be below the recommended level for the normal, pregnant as well as lactating women. Consumption of calcium (in the form of tapioca and fish) was noticed to be highest in normal women where as it was poorest in the lactating women. Similar deficits of calcium in the diets of pregnant and lactating tribal women of Western and central India was reported by (Das & Bose, 2010).The intake of iron and vitamin. A were found to be low. Detailed clinical examination Kannikar tribal women showed that anaemia (90%),vit-A deficiency (30%)and niacin
deficiency (10%) were prevalent among them. The morbidity status of the tribal women revealed the prevalence of pyrexia, respiratory complaints, gastrointestinal diseases and rheumatic diseases. Among the adult women gynecological complaints and deficiency diseases were common. [14]

Abortion and child death rates were also found to be high among the tribal population studied. Poor maternal nutritional could be one of reasons for this high rate. However, it was not possible to identify whether poor maternal nutritional status was contributing to high abortion rate of our simple size was small. Knowledge of tribal women reported as having not consumed iron and folic acid tablets during their previous pregnancy. This was the case with the rest of the county where low consumption of iron and folic acid tablets was reported by multi centric study (ICMR, 1989). Tribal women of this study did not have the warung slipper when they go out. This may increase the chance of getting hookworm infestation thereby causing anaemia. Thus majority of tribal women in Bihar are at risk of delivering low birth weight babies and have pregnancy complications. Some of the reasons for under nutrition among tribal women could be poor diet intake, income, early marriage, and high morbidity due to unhygienic practice and surroundings. Under nutrition of mothers may be may be carried over to their children. [14]

The study revealed that mean BMI and levels of CED of santal females of Purulliya and various tribal population (among females) of West Bengal. From this table it can be inferred that, in general, the mean BMI of santal females of Purulliya were low (18.1 kg/m²) and CED rate indicated a critical situation. In the state of West Bengal, among tribal females, mean BMI was in the range 17.7 kg/m² to 19.7 kg/m². Moreover, the rates of CED varied between 31.7% and 67.9%. These rates were in the category high (20-39%) to very high (>40%). These result clearly indicated that, santal females of Purulliya were in very critical nutritional stress. The relationship between mean BMI and CED among santal females and other female tribals in various states of India is presented in Figure 1. From this table it can be inferred that, in general, the mean BMI of Purulliya was 63.4%. The tribal females of various states of India were in the range 18.2-23.0 kg/m². Moreover, the rates of CED varied between 4.8% (Sikkim) and 64.2% (W.B). These rates were in the category good (<5%) and very high (40%). These results clearly indicated that, tribal females of West Bengal were under critical nutritional stress [15].

The findings are the study of the tribal women of Singbhum direct reveal that highly undernourished. The present study reported 23.9% tribal women as having height <145 cm and 95.9% having weight <45 kg. If <38 kg is taken 3 cut-off for weight than 36.0% of these women can be termed as low weight. This is quite high when compared to studies reported from other parts of India In their study in rural Tamil Nadu Samuel and Rao (1992) had found 14.1% as having height <145 cm and 37.3% as having weight <40
kg. Similarly Anderson (1989) reported 56.0% of women in Gujarat and 63.05% of women in Maharashtra as having weight <40kg and 31.3% mothers were found to have height <145cm. The percentage of malnutrition among tribal women of the present study is high when compared to developed countries. Only 1% US women were found to have weight <40kg. [14].

An earlier study the intake of cereals was higher than the recommended level. Similar observations were also reported by other authors among tribes of Maharashtra and Bihar (Hanumantha Rao et al. 1992 and Chandrasekhar 1997). This is because most of the tribal diet is a cereal-based diet. Most of the nutrients (calories, protein, Iron etc.) except calcium mean intake were inadequate as compared to RDA. Hanumantha Rao et al. (1993) also reported lower intake of such nutrients in Jenu Kurubas, a primitive tribe of Karnataka. The low value of Carotene and Riboflavin could be due to low intake of green vegetable and negligible amount of milk in their diet. The high calcium value was mainly due to frequent consumption of fetid cassia leaves (Cassia-Tora) by this tribe. From the above discussion, it can be attributed that the poor growth pattern of the Bumia may be due to the poor socio-economic condition. Most of the Bhumia populations of Madhya Pradesh live without modern health care and transport facilities. Hence, the Bhumia the study area face many health and nutritional hazards due to poverty, illiteracy and ignorance. The health and nutrition status of the Bhumia tribes requires an immediate attention in the implementation of short-term supplementary feeding programmes, general medical, and awareness and health care facilities, improvement of food security are needed to overcome the nutrient deficits. [18]

Aims and Objectives

Objective is the root of any scientific research. To completion the project work objective formulation is the main part of the study.

i) To evaluate the nutritional status of tribal women.

ii) To assess the nutritional status through anthropometric measurement of tribal women.

iii) To explore the dietary intake of tribal women.

iv) Finally, some recommendation would be made for better livelihood.

v) Materials and Method

Study area: The survey was carried out at Kharikashuli Village of Chandra Grampanchayat under the jurisdiction of Medinipur sadar Block in Paschim Medinipur District among the adult women. This study has been conducted for the period of Feb, 2019 to April, 2019.

Selection of Subjects: The data has been collected through intensive field presented here were obtained from a cross-sectional anthropometry measurement and dietary survey carried out in an adult population (females). I have applied simple
random sampling in availability of the population during survey. In brief, a random sample of 71 female’s are from different Lodha household.

**Survey Method:** Anthropometric measurements were performed as a survey method. It is very useful method for assessing nutritional status as it provides rapid and quantitative means of nutritional assessment. So for this purpose following parameters were taken: weight, height, MUAC, waist, hip

**Apparatus:**
The apparatus used for anthropometric measurements are as follows-

1. Anthropometer- for measuring height.
2. Weighing machine- for measuring weight.
3. Steel tape- for measuring different circumference of body.

**Procedure**

a) **Weight measurement:** For weight measurement I have used human weighing machine. Subject stands the platform of the machine with minimum clothes and exerting equal pressure on both feet. I have taken the weight reading from the scale with an accuracy of 0.5 kg.

b) **Height measurement:** The measurement of body height in nutritional assessment is well recognised as it is a useful indication for long term nutritional adequacy and fundamentally important in anthropometric measurements. For height measurement I have used anthropometric rod. Subject should stand on a flat floor keeping his feet parallel with the heals. His back of head touched the upright portion to touch the hair and make contact with the top of the head. At last I have take the reading from the scale.

c) **Body Mass Index (BMI):** Body Mass Index (BMI) is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as the weight in kilograms divided by the square of the height in meters (kg/m\(^2\)). For example, an adult who weighs 70kg and whose height is 1.75m will have a BMI of 22.9. BMI = 70 kg / (1.75 m\(^2\)) = 70 / 3.06 = 22.9

\[
\text{BMI} = \frac{\text{Weight \ in \ Kg}}{\text{Height \ in \ meter \ square}}.
\]

**BMI Classification according to WHO (1995)**

<table>
<thead>
<tr>
<th>Nutritional Status</th>
<th>BMI (kg/m(^2))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.50</td>
</tr>
<tr>
<td>Severe thinness</td>
<td>&lt;16.00</td>
</tr>
<tr>
<td>Moderate thinness</td>
<td>16.00 - 16.99</td>
</tr>
<tr>
<td>Mild thinness</td>
<td>17.00 - 18.49</td>
</tr>
<tr>
<td>Normal range</td>
<td>18.50 - 24.99</td>
</tr>
<tr>
<td>Overweight</td>
<td>≥25.00</td>
</tr>
<tr>
<td>Pre-obese</td>
<td>25.00 - 29.99</td>
</tr>
<tr>
<td>Obese</td>
<td>≥30.00</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>Obese class I</td>
<td>30.00 - 34.99</td>
</tr>
<tr>
<td>Obese class II</td>
<td>35.00 - 39.99</td>
</tr>
<tr>
<td>Obese class III</td>
<td>≥40.00</td>
</tr>
</tbody>
</table>

Measurement of Mid Upper Arm Circumference (MUAC): MUAC is recognized to indicate the status of muscle development. It is measured on the left hand, the mid-point between the acromion of the scapula and tip of the olecranon of the fore-arm bone, ulna is located with the arm flexed at the elbow and marked with a marker pen. Flexible tape is used and the reading is taken to the nearest millimeter.

Measurement of Waist circumference:
The waist circumference is measured in standing position with arm at sides, done with minimal clothing with measuring tape to the nearest 0.1 cm in a perpendicular to the long axis immediately superior to iliac crest.

Measurement of Hip circumference:
Hip circumference measured in a standing position with minimal clothing by measuring tape to the nearest 0.1 cm at the level of maximum posterior extension of the buttocks.

Waist–hip ratio:
WHR is the ratio of the circumference of the waist to that of the hips. This is calculated as waist measurement divided by hip measurement (W ÷ H).

Dietary Assessment:
Diet survey constitutes an essential part of any complete study of nutritional status of individual or groups.

Here, I followed the interview method for the purpose of dietary assessment. Some of the interview techniques are diet recall, diet history, food frequency questionnaire etc. Here I followed the diet recall (3-5 day) method.

Statistical Analysis of data:

Statistics is the science of the methodology for scientific collection, systematic, presentations, mathematical; analysis of interpretation of the data and for drawing in references about the explored property of phenomenon it the relevant population, in this respect, statistics has the following basic applications. The calculated data was analysed by Microsoft excel.

Mean:
Mean is the arithmetic average of asset of scores. The mean of a sample (statistical mean) and that of a population (Parametric mean) are represented by the symbols x and μ, respectively where X (or X 1) represents each individual score of a sample, Σ X (or Σ Xi) is the sum of all its scores, an n is the sample size or the total frequency of cases in the sample.

\[ \bar{X} = \frac{\sum X}{n} \]

Standard deviation:
Standard deviation (SD) is the positive square root of the mean of squared deviations of all the scores from the mean. It is an absolute measure of deviation and is expressed in the

\[ s = \sqrt{\frac{\sum (x - \bar{X})^2}{n - 1}} \]
same unit as the original scores. Standard deviation of a sample is denote by

**Standard Error:**

Standard error (SE) of a statistics is a measure of the deviation of that statistics from the corresponding parameter and consequently serves as an index of the sampling error of that statistics. It is the standard deviation of the sampling distribution of the relevant statistics.

**FINDINGS OF THE STUDY**

This study had a total of 71 adult female who participated in the present study.

**Table 1: Statistical value of Anthropometric and dietary intake in relation with ICMR Reference Value**

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>TRIBAL WOMEN MEAN±SE</th>
<th>ICMR REFERENCE VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight(kg)</td>
<td>42.20±0.78</td>
<td>55</td>
</tr>
<tr>
<td>Height(cm)</td>
<td>147.52±0.70</td>
<td>161</td>
</tr>
<tr>
<td>MUAC(cm)</td>
<td>21.69±0.21</td>
<td>22</td>
</tr>
<tr>
<td>W/H ratio (cm)</td>
<td>0.83±0.004</td>
<td>0.85</td>
</tr>
<tr>
<td>Energy (kcal)</td>
<td>2099.55±18.46</td>
<td>2850</td>
</tr>
<tr>
<td>Protein(gm)</td>
<td>47.86±0.71</td>
<td>55</td>
</tr>
<tr>
<td>Calcium (mg)</td>
<td>333.09±15.69</td>
<td>600</td>
</tr>
<tr>
<td>Iron (mg)</td>
<td>12.44±0.55</td>
<td>21</td>
</tr>
<tr>
<td>Beta-carotene (ug)</td>
<td>1438.12±225 .65</td>
<td>4800</td>
</tr>
<tr>
<td>Thiamine (mg)</td>
<td>1.40±0.02</td>
<td>1.4</td>
</tr>
<tr>
<td>Riboflavin (mg)</td>
<td>0.56±0.02</td>
<td>1.7</td>
</tr>
</tbody>
</table>

**Table 2: Mean nutrient intake of the selected subjects.**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Nutrients</th>
<th>ICMR standards</th>
<th>Mean</th>
<th>SD</th>
<th>% of nutrient intake</th>
<th>% Excess or deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Energy(Kcal)</td>
<td>2850</td>
<td>2099.55</td>
<td>55</td>
<td>15.51</td>
<td>73.67</td>
</tr>
<tr>
<td>2</td>
<td>Protein(gm)</td>
<td>55</td>
<td>47.86</td>
<td>86</td>
<td>5.98</td>
<td>87.02</td>
</tr>
<tr>
<td>3</td>
<td>Calcium(mg)</td>
<td>600</td>
<td>33.09</td>
<td>9</td>
<td>13.2</td>
<td>55.52</td>
</tr>
<tr>
<td>4</td>
<td>Iron(mg)</td>
<td>21</td>
<td>12.44</td>
<td>44</td>
<td>4.65</td>
<td>59.24</td>
</tr>
<tr>
<td>5</td>
<td>Beta-carotene(u g)</td>
<td>4800</td>
<td>14.38</td>
<td>12</td>
<td>19.01</td>
<td>29.96</td>
</tr>
<tr>
<td>6</td>
<td>Thiamine(mg)</td>
<td>1.4</td>
<td>1.4</td>
<td>0.18</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Riboflavin(mg)</td>
<td>1.7</td>
<td>0.56</td>
<td>0.18</td>
<td>32.94</td>
<td>-67.06</td>
</tr>
<tr>
<td>8</td>
<td>Niacin(mg)</td>
<td>16</td>
<td>19.96</td>
<td>96</td>
<td>1.28</td>
<td>124.75</td>
</tr>
<tr>
<td>9</td>
<td>Vitamin C(mg)</td>
<td>40</td>
<td>76.36</td>
<td>36</td>
<td>64.47</td>
<td>190.9</td>
</tr>
</tbody>
</table>

**Table 3: Mean dietary intake of the selected subjects.**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Food Stuffs</th>
<th>ICMR standards</th>
<th>Mean</th>
<th>SD</th>
<th>% of the present study</th>
<th>% Excess or Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cereal</td>
<td>480</td>
<td>43</td>
<td>2.04</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Pulses</td>
<td>90</td>
<td>24</td>
<td>1</td>
<td>27.47</td>
<td>-72.53</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Nutrients</th>
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</thead>
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<td>3</td>
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<td>59.24</td>
</tr>
<tr>
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<td>14.38</td>
<td>12</td>
<td>19.01</td>
<td>29.96</td>
</tr>
<tr>
<td>6</td>
<td>Thiamine(mg)</td>
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<td>0.18</td>
<td>100</td>
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</tr>
<tr>
<td>7</td>
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<td>0.56</td>
<td>0.18</td>
<td>32.94</td>
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</tr>
<tr>
<td>8</td>
<td>Niacin(mg)</td>
<td>16</td>
<td>19.96</td>
<td>96</td>
<td>1.28</td>
<td>124.75</td>
</tr>
<tr>
<td>9</td>
<td>Vitamin C(mg)</td>
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<td>64.47</td>
<td>190.9</td>
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</tbody>
</table>

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<tr>
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<th>Mean</th>
<th>SD</th>
<th>% of the present study</th>
<th>% Excess or Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cereal</td>
<td>480</td>
<td>43</td>
<td>2.04</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Pulses</td>
<td>90</td>
<td>24</td>
<td>1</td>
<td>27.47</td>
<td>-72.53</td>
</tr>
</tbody>
</table>
### Table 4: Socio demographic profile of tribal women.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number (%) n=71</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age group</strong></td>
<td></td>
</tr>
<tr>
<td>18-</td>
<td>71 (100)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>50 (70.42)</td>
</tr>
<tr>
<td>Literates</td>
<td>21 (29.58)</td>
</tr>
<tr>
<td><strong>Occupations</strong></td>
<td></td>
</tr>
<tr>
<td>Labour</td>
<td>48 (67.61)</td>
</tr>
<tr>
<td>FPC</td>
<td>23 (32.39)</td>
</tr>
<tr>
<td><strong>Type Of Family</strong></td>
<td></td>
</tr>
<tr>
<td>Nuclear Family</td>
<td>54 (76.06)</td>
</tr>
<tr>
<td>Joint Family</td>
<td>17 (23.94)</td>
</tr>
</tbody>
</table>

### Table 5: According to Kuppur’s swami scale Socio-Economic Status of the studied Lodha Women

<table>
<thead>
<tr>
<th>Score</th>
<th>Socioeconomic Class</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>26to29</td>
<td>Upper(I)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16to25</td>
<td>Upper Middle(II)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11to15</td>
<td>Lower Middle(III)</td>
<td>3</td>
<td>4.23</td>
</tr>
<tr>
<td>5to10</td>
<td>Upper Lower(IV)</td>
<td>68</td>
<td>95.77</td>
</tr>
<tr>
<td>&lt;5</td>
<td>Lower (V)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>71</td>
<td>100</td>
</tr>
</tbody>
</table>

### Table 5: Comparison of body weight (kg) of tribal women (n=71) with ICMR standard

<table>
<thead>
<tr>
<th>Tribal Women</th>
<th>Reference value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean(kg)±S E</td>
<td>42.20±0.78</td>
</tr>
</tbody>
</table>
Figure: Body weight of tribal women.

**Table 6: Comparison of body height (cm) of tribal women (n=71) with ICMR standard.**

<table>
<thead>
<tr>
<th>Tribal Women</th>
<th>Reference value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean(cm)±SE</td>
<td>147.52±0.70</td>
</tr>
</tbody>
</table>

Figure: Body height (cm) of tribal women.

**Table 7: Comparison of MUAC (cm) of tribal women (n=71) with ICMR standard.**

<table>
<thead>
<tr>
<th>Tribal Women</th>
<th>Reference value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean(cm)±SE</td>
<td>21.69±0.21</td>
</tr>
</tbody>
</table>

Figure: Mid Upper Arm Circumference (cm) of tribal women.

**Table 8: Comparison of W/H Ratio of tribal women (n=71) with ICMR standard.**

<table>
<thead>
<tr>
<th>Tribal Women</th>
<th>Reference value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean±SE</td>
<td>0.83±0.004</td>
</tr>
</tbody>
</table>

Figure: W/H Ratio of tribal women.

**Table 9: Body mass index of tribal women (N=71) according to WHO standard in different categories.**

<table>
<thead>
<tr>
<th>Grading of BMI</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe thinness</td>
<td>1</td>
<td>1.41</td>
</tr>
<tr>
<td>Moderate thinness</td>
<td>6</td>
<td>8.45</td>
</tr>
<tr>
<td>Mild thinness</td>
<td>31</td>
<td>43.66</td>
</tr>
<tr>
<td>Normal</td>
<td>28</td>
<td>39.44</td>
</tr>
<tr>
<td>Overweight</td>
<td>5</td>
<td>7.04</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>71</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Figure: Body Mass Index of tribal women.
Table 10: Comparison of nutrient intake of tribal women (n=71) with ICMR standard.

<table>
<thead>
<tr>
<th>SI No</th>
<th>Nutrients</th>
<th>ICMR standards</th>
<th>Mean</th>
<th>SD</th>
<th>% of nutrient intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Energy (Kcal)</td>
<td>2850</td>
<td>209</td>
<td>9.5</td>
<td>73.67%</td>
</tr>
<tr>
<td>2</td>
<td>Protein (gm)</td>
<td>55</td>
<td>47</td>
<td>5.9</td>
<td>87.02%</td>
</tr>
<tr>
<td>3</td>
<td>Calcium (mg)</td>
<td>600</td>
<td>333</td>
<td>1.3</td>
<td>55.52%</td>
</tr>
<tr>
<td>4</td>
<td>Iron (mg)</td>
<td>21</td>
<td>12.3</td>
<td>4.6</td>
<td>59.24%</td>
</tr>
<tr>
<td>5</td>
<td>B-Carotene (ug)</td>
<td>4800</td>
<td>143</td>
<td>8.1</td>
<td>29.96%</td>
</tr>
<tr>
<td>6</td>
<td>Thiamine (mg)</td>
<td>1.4</td>
<td>1.4</td>
<td>0.1</td>
<td>100</td>
</tr>
<tr>
<td>7</td>
<td>Riboflavin (mg)</td>
<td>1.7</td>
<td>0.5</td>
<td>0.1</td>
<td>32.94%</td>
</tr>
<tr>
<td>8</td>
<td>Niacin (mg)</td>
<td>16</td>
<td>19.9</td>
<td>1.2</td>
<td>124.75%</td>
</tr>
<tr>
<td>9</td>
<td>Vitamin C (mg)</td>
<td>40</td>
<td>76.3</td>
<td>64</td>
<td>190.9%</td>
</tr>
</tbody>
</table>

Table 11: Comparison of dietary intake of tribal women (n=71) with ICMR standard.

<table>
<thead>
<tr>
<th>SI No</th>
<th>Food Stuffs</th>
<th>ICMR standards</th>
<th>Mean (gm or ml)</th>
<th>SD</th>
<th>% dietary intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cereals</td>
<td>480</td>
<td>432.04</td>
<td>36.4</td>
<td>90.01</td>
</tr>
<tr>
<td>2</td>
<td>Pulses</td>
<td>90</td>
<td>24.72</td>
<td>11.9</td>
<td>27.47</td>
</tr>
<tr>
<td>3</td>
<td>Milk &amp; milk products</td>
<td>300</td>
<td>45.07</td>
<td>50.1</td>
<td>15.02</td>
</tr>
<tr>
<td>4</td>
<td>Roots &amp; tubers</td>
<td>200</td>
<td>205.28</td>
<td>46.0</td>
<td>102.64</td>
</tr>
<tr>
<td>5</td>
<td>Green leafy vegetables</td>
<td>100</td>
<td>58.45</td>
<td>53.4</td>
<td>58.45</td>
</tr>
<tr>
<td>6</td>
<td>Other vegetables</td>
<td>200</td>
<td>148.59</td>
<td>56.8</td>
<td>74.3</td>
</tr>
<tr>
<td>7</td>
<td>Fish/meat/egg</td>
<td>50</td>
<td>19.72</td>
<td>24.6</td>
<td>39.44</td>
</tr>
<tr>
<td>8</td>
<td>Fruits</td>
<td>100</td>
<td>19.72</td>
<td>40.0</td>
<td>19.72</td>
</tr>
<tr>
<td>9</td>
<td>Sugar</td>
<td>45</td>
<td>19.23</td>
<td>1.82</td>
<td>42.73</td>
</tr>
<tr>
<td>10</td>
<td>Fat</td>
<td>30</td>
<td>19.58</td>
<td>1.4</td>
<td>65.27</td>
</tr>
</tbody>
</table>

Figure: Dietary intake of tribal women.
DISCUSSION
The present study examines the nutritional status of women in an effort to estimate the prevalence of malnutrition. It is a cross sectional study conducted in Kharikashuli Village of Chandra Grampanchayat under the jurisdiction of Medinipur sadar Block in Paschim Medinipur District among 71 randomly selected tribal women. Simple random sampling technique was applied to collect data.
The anthropometric measurements of the tribal women in this study revealed that there is deficit in both weight and height as compared to the standards. The Indian Council of Medical Research (ICMR) has set a standard of 161 cm as average height for Indian women and 55 kg as average body weight for Indian reference women. In the study mean weight of tribal women was 42.20±0.78 kg and mean height was 147.52 ± 0.70 cm. prevalence of thinness among the study women was 1.41% severe thinness, 8.45% moderate thinness, 43.66% mild thinness.
Nutrient intake of the selected tribal adult women in the present study was found to be inadequate when compared with RDA of ICMR (2010) except thiamine, niacin and vitamin-C. calorie deficiency was 26.33% where as protein deficiency was about 12.98%. The extent of deficit was highest with respect to calcium (44.498%), iron (40.76%), followed by beta-carotene (70.04%), riboflavin (67.06%).
In this study earnings status of the household was very low. In this study it is shown that about 4.23% respondents belonging to lower middle (III) category and the rest 95.77% were belonging to upper lower (IV) class. Studies have shown that majority of the respondents (70.42%) were illiterate and the remaining were (29.58%) were literate but have attend only up to primary school. Most of them of the subject are day labour (67.61%) and rests are forests produce collection (32.34%) by which it is expressed that they have low economical status.

CONCLUSION
The purpose of this study was to evaluate the nutritional status of Lodha women. This study design was a questionnaire-based cross-sectional study. For the assessment of nutritional status different parameters like weight, height, MUAC, waist and hip circumference, Socio-economic status and dietary intake pattern was taken.
The Lodhas are more back warded tribal populations than other tribal group and they are also socio-economically back warded compared to other population groups. [10] This study concluded that the average intake of all nutrients was lower than the ICMR standards. So, in connection with anthropometric variable of tribal women also found lower than the ICMR standards.
In my study it was revealed that the nutritional status of Lodha women was generally poor. During my survey I have found that the most Lodha women belonging in upper lower (IV) socio-economic class.
So the observation of dietary assessment could explain the above under nutrition. Most probably above under nutrition may be due to the dilatory intake in tribal adult women. (WHO, 1984)
RECOMMENDATION

Food is the source of nutrients which are required for maintenance, repair, growth and development of body. Low intake of nutrients is a major cause of poor nutritional status. Regular and proper quality intake of nutritious diet is the need of the day in tribal areas. When anthropometric measurements of tribal women were compared with ICMR reference values found to be less than reference values. A comparison of the intake of various nutrients with ICMR recommendations for heavy worker women indicated that their intakes of nutrients were less than RDA.

- Increase literacy rate and awareness about importance of health hygiene and sanitation.
- Knowledge about food and nutrition necessary for women.
- They need to include all food groups in their diet.
- Intake of seasonal fruits and vegetables when they are not so costly can be Increased.
- To improve nutritional status of the Lodha women health education, awareness and nutritional counseling are necessary.
- Most importantly, immediate nutritional intervention programs are needed for better implementation for the Lodhas

REFERENCE


Sunita Bera is a graduate of Vidyasagar University, Medinipur with MSc. Nutrition and Dr. Santanu Panda is a Research Assistant at Asiatic Society, Kolkata.
Trend In Intellectual Property Generation And Disposal Of IP Applications

Prantik Roy & Dr. Jayanta Ghosh

Abstract

Intellectual Property (IP) is assuming a greater importance with the rise of the knowledge economy. Technology and innovation are value drivers in the dynamic environment in this day and age. In the emerging knowledge economy worldwide the paradigms are shifting from physical to knowledge resources. Nature of the businesses is undergoing change on this count as increasingly the businesses are turning from being capital-intensive to knowledge-intensive. Thus, there is a pertinent need on the part of the enterprises to consciously manage the activities related to IP. With the emergence of knowledge economy and rapid technological changes, creation of IP is becoming indispensable for the modern day businesses, even for survival. In this backdrop, it is expected for a developing country like India to have in place a strong IP system to boost faster the socio-economic progress of the country through stimulation of innovation, research and creativity. A strong IP system contributes to GDP growth of a country through increased sectoral output. It facilitates knowledge-based industrial growth and creates favourable climate for technology transfer. A strong IP system could also influence the inflows of Foreign Direct Investment (FDI). Most significantly, it enables a country to achieve self-sufficiency especially in strategic sectors and thereby, it provides a competitive edge. Moreover, a strong and balanced IP system is one of the key means to support innovation and development objectives of a country. Hence, the present study made an attempt to explore the trend in IP generation and disposal of IP applications in India. Above all, the present study seeks to analyse the working of IP system in the country.

Keywords: Property, Knowledge Economy and Foreign Direct Investment

Introduction and Background

The word Intellectual Property (IP) may sound alien to someone’s ears. But when we pick any product around us from the routines of our life it forms as part of an intellectual property. IP in common parlance is the creative work of the human intellect. World Intellectual Property Organisation (WIPO) defines IP as the creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs, used in commerce. IP is assuming a greater importance with the rise of the knowledge economy. Technology and innovation are value drivers in the dynamic

environment now days. In the emerging knowledge economy worldwide the paradigms are shifting from physical to knowledge resources. Nature of the businesses is undergoing change on this count as increasingly the businesses are turning from being capital-intensive to knowledge-intensive.

At enterprise level IP assets such as, Patents, Copyrights and Trade Marks now account for a majority proportion of market capitalisation. According to the available estimates, by late 1990s approximately 75% of market capitalisation of the Fortune 100 companies was accounted for by such IP assets\(^2\). Thus, there is a pertinent need on the part of the enterprises to consciously manage the activities related to IP. With the emergence of knowledge economy and rapid technological changes, creation of IP is becoming indispensable for the modern day businesses, even for survival.

In this backdrop, it is expected for a developing country like India to have in place a strong IP system to boost faster the socio-economic progress of the country through stimulation of innovation, research and creativity. A strong IP system contributes to GDP growth of a country through increased sectoral output. It facilitates knowledge-based industrial growth and creates favourable climate for technology transfer. A strong IP system could also influence the inflows of FDI. Most significantly, it enables a country to achieve self-sufficiency especially in strategic sectors and thereby, it provides a competitive edge.

Moreover, a strong and balanced IP system is one of the key means to support innovation and development objectives of a country. Hence, the present study is undertaken with the following aims and objectives.

**Objectives of the study**

- To present an overview of Genesis of IP and working of IP system.
- To study IP generation activity in India-exploring the trend in IP filing and composition thereof.
- To explore the trend in disposal of IP applications over the study period.
- To analyse in a nutshell the working of IP system in India.

**Research Methodology**

The present work is an analytical construct and data for this have been collected from diversified sources which include existing secondary sources such as, books, reports and publications of relevant national agencies and international organisations and other published web based resources accessed through internet.

In order to show the trend in IP filing, composition and disposal thereof, the data for 7 years covering the period 2010-11 to 2016-17 ("study period") have been taken into consideration since lot of policy changes took place during the same period. However, data for 2017-18 have been excluded as data for the whole year are not available in the public domain. Further, data in respect of copyright excepting for the year 2015-16 and 2016-17 are available on calendar year basis, and therefore, excluded.

The data gathered from various sources have been reviewed and summarised before processing. Tables have been used in relevant places to depict the statistical data relevant for the study. Statistical tools and calculations like percentage, arithmetic mean, growth rate etc., have been used for analysis of data.

**Genesis Of IP And Working Of IP System (An Overview)**

As noted earlier, WIPO defines IP as creations of the mind: inventions; literary and artistic works; and symbols, names and images used in commerce. However, IP is divided into two categories namely, Industrial Property and Copyright. The following chart shows in detail what actually constitutes IP.

<table>
<thead>
<tr>
<th>Industrial Property</th>
<th>Copyright</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covers Patents, Trade Marks, Industrial Designs and Geographical indications</td>
<td>Covers Literary works (such as novels, poems and plays), films, music, artistic works (e.g., drawings, paintings, photographs and sculptures), architectural design etc</td>
</tr>
</tbody>
</table>

IP rights like any other property right allow creators or owners of Patents, Trade Marks or Copyrighted works to benefit from their own work. These rights are outlined in Article 27 of the Universal Declaration of Human Rights which provides for the right to benefit from the protection of moral and material interests resulting from authorship of scientific, literary or artistic productions.

Recognition to importance of IP was first given by the Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886). These two Conventions are administered by the WIPO at this moment in time.

In India, the Department of Industrial Policy and Promotion (DIPP) is responsible for administering legislations concerning Patent, Design, Trade Mark, Geographical Indication (GI), Copyright and Semi-Conductor Integrated Circuits Layout Design. However, these are administered through Office of the Controller General of Patents, Designs and Trade Marks (CGPDTM), a subordinate office under DIPP, Ministry of Commerce and Industry, with headquarters at Mumbai. It is noted that the administration of Copyright is shifted to Office of the CGPDTM w.e.f., 17.03.2016.
Thus, Office of the CGPDTM is primarily concerned with the administration of Patent, Design, Trade Mark, Geographical Indication, Copyright and Semi-Conductor Integrated Circuits Layout Design Registry and functioning of IP offices in the country. The Office of the CGPDTM has been working in streamlining the processes of IP administration in the country in order to provide better services to stakeholders. The Government has taken multiple steps over the years to strengthen IP system in the country in line with International best practices. National IPR policy was launched recently in the year 2016 which aims at fulfilling several objectives which include, *inter alia*, administration and management of IPRs. Amendments aiming at simplifying the procedures were made in the existing IP laws.

**Exploring trend in IP generation and composition**

Table 6.1 shows the IP applications filed in IP offices in India between 2010-11 and 2016-17. Data clearly indicates a consistent rise in IP filing in India during the study period except in the year 2016-17 in which there was a sharp decline in total number of applications filed by 1.5243 % as compared to 2015-16.

**Table 6.1: Trend in IP Filing in India (Between 2010-11 and 2016-17)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Applications Filed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent</td>
<td>39, 400</td>
</tr>
<tr>
<td>Design</td>
<td>7.5, 8.3</td>
</tr>
<tr>
<td>Trad.</td>
<td>1.7, 1.8</td>
</tr>
<tr>
<td>Mark</td>
<td>9.3, 8.3</td>
</tr>
<tr>
<td>GI</td>
<td>27, 24</td>
</tr>
<tr>
<td>Copy</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>2,2, 2,3, 2,4, 2,5, 2,6, 3,5</td>
</tr>
</tbody>
</table>

**Source:** Annual Report³

Thus, Table 6.1 shows Trade Mark accounts for a major portion of IP filing which consisted of 79.3693 % of total IP filing in 2016-17. Table 6.2, however, shows the composition of IP filing and percentage share of each in total.

**Table 6.2: Composition of IP Filing and Percentage Share of Each in Total**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent</td>
<td>46, 45, 904, 444</td>
</tr>
<tr>
<td>Design</td>
<td>11, 10, 108, 213</td>
</tr>
<tr>
<td>Trad.</td>
<td>2,8, 2,7</td>
</tr>
<tr>
<td>Mark</td>
<td>3,0, 8,1</td>
</tr>
<tr>
<td>GI</td>
<td>17, 32</td>
</tr>
<tr>
<td>Copy</td>
<td>14, 16, 812, 617</td>
</tr>
<tr>
<td>Total</td>
<td>3,5, 3,5</td>
</tr>
</tbody>
</table>

Consequently, major categories of IPs in respect of which applications are being filed for registration comprises of Trade Mark followed by Patent, Copyright and Design with a very less percentage that is, 12.9663 %, 4.7413 % and 2.9140 % respectively of total applications filed in 2016-17, and a few applications are filed with respect to GI with a very insignificant percentage of 0.0091%. However, Tables 6.3, 6.4, 6.5, and 6.6 respectively show the trend in each of the major categories of IP.

Table 6.3: Trend in Trade Mark Filing

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>1.7</td>
<td>1.8</td>
<td>1.9</td>
<td>2.0</td>
<td>2.1</td>
<td>2.8</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>9.3</td>
<td>3.5</td>
<td>4.2</td>
<td>0.0</td>
<td>0.5</td>
<td>3.0</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>88</td>
<td>16</td>
<td>05</td>
<td>01</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>-</td>
<td>2.3</td>
<td>5.7</td>
<td>2.9</td>
<td>5.2</td>
<td>34.469</td>
<td>(-)1.7</td>
</tr>
<tr>
<td></td>
<td>818</td>
<td>890</td>
<td>807</td>
<td>478</td>
<td>6</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td>AA GR (Av)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.1902%</td>
<td></td>
</tr>
</tbody>
</table>

Table 6.4: Trend in Patent Filing

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>39,400</td>
<td>43,197</td>
<td>43,674</td>
<td>42,951</td>
<td>42,763</td>
<td>46,904</td>
<td>45,444</td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>-</td>
<td>9.6</td>
<td>1.1</td>
<td>(-)1.6</td>
<td>(-)0.4</td>
<td>9.6</td>
<td>(-)3.1</td>
</tr>
<tr>
<td></td>
<td>370</td>
<td>042</td>
<td>554</td>
<td>377</td>
<td>386</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>AA GR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.0552%</td>
<td></td>
</tr>
</tbody>
</table>

Table 6.3 exhibits trend in Trade Mark filing at all five locations of Trade Mark Registry. Trade Mark generation activity in India is rising consistently with average annual growth rate of 8.1902%. However, the year 2016-17 recorded a sharp decline by 1.7275 % as compared to 2015-16.

Table 6.4 shows trend in Patent generation activity in India is not consistent. Although, the year 2011-12, 2012-13, and 2015-16 recorded a positive growth rate in Patent filing, yet the same declined during 2013-14 and 2014-15. In 2016-17, number of filing again has gone down by 3.1127% as compared to 2015-16. However, Patent generation activity in India recorded an average annual growth rate of 3.0552% during the study period.
Table 6.5: Trend in Design Filing

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>7.5</td>
<td>8.37</td>
<td>8.33</td>
<td>8.5</td>
<td>9.3</td>
<td>11.1</td>
<td>10.2</td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>10.3</td>
<td>(-0.4)</td>
<td>2.3</td>
<td>9.3</td>
<td>19.0</td>
<td>8.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 6.5, however, indicates that Design generation activity in India recoded an average annual growth rate of 5.4324% during the study period. The year 2015-16 recorded an all time highest growth rate of 19.0951%.

Table 6.6: Trend in Copyright Filing

<table>
<thead>
<tr>
<th>Copyright</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>14,812</td>
<td>16,617</td>
</tr>
</tbody>
</table>

Table 6.6 indicates a total of 16,617 Copyright applications were filed during the financial year 2016-17. Copyright generation activity is gone up by 12.1860% during 2016-17 as compared to 2015-16.

Exploring trend in disposal of ip applications

Table 7.1 drawn below exhibits trend in Trade Mark applications filed vis-a-vis examined, registered and disposed. The figures shown in Table 7.1 under disposal category include Trade Marks registered and refused by the office, and also applications withdrawn and abandoned by the applicants.

Table 7.1: Trend in Trade Mark Filing vis-a-vis Examination, Registration and Disposal

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>1.7</td>
<td>3.5</td>
<td>1.9</td>
<td>2.0</td>
<td>2.1</td>
<td>2.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Examine d</td>
<td>2.0</td>
<td>1.1</td>
<td>2.0</td>
<td>1.6</td>
<td>1.6</td>
<td>2.6</td>
<td>7.8</td>
</tr>
<tr>
<td>Registered</td>
<td>1.1</td>
<td>5.4</td>
<td>44</td>
<td>67</td>
<td>41</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Disposal</td>
<td>1.3</td>
<td>2.5</td>
<td>57</td>
<td>69</td>
<td>83</td>
<td>1,1</td>
<td>6,1</td>
</tr>
</tbody>
</table>

Source: Annual Report
Examination of Trade Mark applications recoded an increase by 98.6963% in 2016-17 than 2015-16. The number of Trade Marks registered also increased significantly by 284.4569 % and number of applications disposed increased by 150.0228% in 2016-17 than 2015-16.

Table 7.2: Trend in Patent Filing vis-a-vis Examination, Grant and Disposal

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>39,400</td>
<td>43,197</td>
<td>43,674</td>
<td>42,951</td>
<td>42,763</td>
<td>46,904</td>
<td>45,444</td>
</tr>
<tr>
<td>Examined</td>
<td>11,208</td>
<td>11,031</td>
<td>12,268</td>
<td>18,615</td>
<td>22,631</td>
<td>16,851</td>
<td>28,967</td>
</tr>
<tr>
<td>Granted</td>
<td>7,509</td>
<td>4,381</td>
<td>4,126</td>
<td>4,227</td>
<td>5,978</td>
<td>6,326</td>
<td>9,847</td>
</tr>
<tr>
<td>Disposal</td>
<td>12,851</td>
<td>8,488</td>
<td>9,027</td>
<td>9,141</td>
<td>14,316</td>
<td>21,987</td>
<td>30,271</td>
</tr>
</tbody>
</table>

Table 7.2 indicates examination of Patent applications gone up by 74.6999% in 2016-17 than 2015-16. The number of Patents granted during 2016-17 also increased by 55.6591% as compared to 2015-16. Total number of applications disposed which includes Patent granted and refused by the Patent office, and also applications withdrawn and abandoned by the applicants increased by 37.6768% in 2016-17 as compared to 2015-16.

Table 7.3: Trend in Design Filing vis-a-vis Examination, Registration and Disposal

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>7,589</td>
<td>8,373</td>
<td>8,337</td>
<td>8,533</td>
<td>9,327</td>
<td>11,088</td>
<td>10,213</td>
</tr>
<tr>
<td>Examined</td>
<td>6,677</td>
<td>6,511</td>
<td>6,676</td>
<td>7,281</td>
<td>7,459</td>
<td>9,426</td>
<td>11,940</td>
</tr>
<tr>
<td>Registered</td>
<td>9,206</td>
<td>6,590</td>
<td>7,252</td>
<td>7,178</td>
<td>7,147</td>
<td>7,904</td>
<td>8,276</td>
</tr>
<tr>
<td>Disposal</td>
<td>9,221</td>
<td>6,705</td>
<td>7,300</td>
<td>7,226</td>
<td>7,218</td>
<td>8,023</td>
<td>8,332</td>
</tr>
</tbody>
</table>

Table 7.3 depicts during 2016-17, number of Design applications examined increased by 26.6709%, Design registrations, however, increased by 4.7064% and number of applications disposed increased by 3.8514%, as compared to 2015-16.

Table 7.4: Trend in GI Filing vis-a-vis Examination and Registration

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>27,148</td>
<td>24,754</td>
<td>47,174</td>
<td>32,304</td>
<td>60,420</td>
<td>200,280</td>
<td>34,326</td>
</tr>
<tr>
<td>Examined</td>
<td>32,372</td>
<td>30,420</td>
<td>60,420</td>
<td>200,280</td>
<td>34,326</td>
<td>32,372</td>
<td>30,420</td>
</tr>
<tr>
<td>Registered</td>
<td>29,232</td>
<td>21,222</td>
<td>20,262</td>
<td>34,326</td>
<td>34,326</td>
<td>34,326</td>
<td>34,326</td>
</tr>
</tbody>
</table>

Between 15<sup>th</sup> September 2003 and 31<sup>st</sup> March 2017, 543 (nos.) GI applications have been filed, of which 32 (nos.) applications filed in 2016-17. However, during 2016-17, 34 (nos.) of GIs were registered as compared to 26 (nos.) in 2015-16,
which recorded an all time highest increase by 30.7692%.

**Table 7.5: Trend in Copyright Filing vis-a-vis Examination, Registration and Disposal**

<table>
<thead>
<tr>
<th>Copyright</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filed</td>
<td>14,812</td>
<td>16,617</td>
</tr>
<tr>
<td>Examined</td>
<td>9,325</td>
<td>16,584</td>
</tr>
<tr>
<td>Registered</td>
<td>4,505</td>
<td>3,596</td>
</tr>
<tr>
<td>Disposal</td>
<td>16,203</td>
<td>16,236</td>
</tr>
</tbody>
</table>

Table 7.5 indicates although the examination of Copyright applications increased by 77.8445% during 2016-17 as compared to 2015-16, the number of Copyrights registered during the year, however, declined by 20.1775% than 2015-16. A total of 16,236 (nos.) Copyright applications were disposed during 2016-17 which recorded an increase by less than 1% as compared to 2015-16.

**Table 7.6: Trend in IP Registered/Granted and (Disposed) at a Glance**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Mark</td>
<td>1,1 (5,4 72) (1,32, 50 7)</td>
<td>51 (57 7,35 361 .86 7)</td>
<td>44 (69 76 31 6)</td>
<td>67,8 (1,0 47 56)</td>
<td>76 (3,5 83 65 2)</td>
<td>65 (1,1 45 6,16 7)</td>
<td>2,50 (2,9 0,70 4,44 0)</td>
</tr>
</tbody>
</table>

**Concluding remarks**

It is therefore, noted that the year 2015-16 recoded an all time highest growth rate in IP generation activity in India in terms of number of applications filed for registration in all categories. During this year only “Start-up India”, a flagship initiative, was launched by the Government of India to build a strong eco-system for nurturing innovation and start-ups in the country. This rising trend continued in respect of GI and Copyright even in 2016-17. However, number of applications filed in respect of Patent, Design and Trade Mark fell down in 2016-17 as compared to 2015-16.

Yet on the other, it is to be noted that the year 2016-17 recorded an all time highest increase in disposal of IP applications in respect of all major categories of IPs. This may be attributed to procedural reforms brought about during the year in the working of IP system especially in connection with filing, processing and disposal of...
IP applications. The year 2016-17 has recorded several achievements at policy level with the aim of establishing a favourable environment for creation as well as protection of IPRs and streamlining the working of IP system in the country.

Amendments aiming at simplifying the procedures, inclusion of start-up as a new category of applicant with 80% concession in fees, expedited examination of patent applications filed by start-ups etc were made in the Patent Rules, 2003 by the Patent (Amendment) Rules, 2016 which notified in May 2016. Patent Rules, 2003 were further amended by DIPP w.e.f., 1st December 2017 called as the Patent (Amendment) Rules, 2017. The definition of “start-up” under rule 2(fb) has been substituted with a new definition. A more liberal definition of start-up has been provided that allows domestic as well as foreign entities to claim benefits such as fast-track mechanism and lower fee for filing Patents.

Trade Mark Rules, 2017 (notified in March 2017) which repealed earlier Trade Mark Rules, 2002 again have brought about significant changes namely; number of forms brought down from 74 to 8, promotion of e-filing, expedited processing of applications, allowing video conferencing for hearings, reduced adjournments, e-service of documents, etc.

Moreover, the National IPR Policy 2016 laid down the future roadmap for IPRs in India. The policy of 2016 in totality aimed at to promote stable IP regime in the country and to encourage innovation to achieve the country’s developmental goals.

Expedite disposal of IP applications and satisfactory delivery of services to stakeholders are pillars of IP framework. During 2016-17, the Office has made noteworthy achievements in terms of delivery of IP services and IT-enabled functioning. As a result, the number of applications examined and disposed has gone up during the year. Pendency in examination of Trade Mark applications has been brought down from 14 months to less than 1 month. In Designs, pendency in examination of new applications again has gone down from 8 to 1 month. During 2016-17, e-filing has increased to 80% in Trade Marks and 90% in Patents. Further, as reported by the Office of CGPDTM, out of total 45,444 Patent applications filed during 2016-17, the number of applications filed by Indian applicants was 13,219 which represent 29.2% of the total applications filed.

At last, it can be concluded that policy initiatives taken in the recent past are expected to yield desired result in the days to come.


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Romantic relationships: the case of special courts under POCSO Act of 2012

Shivam Pandey & Somabha Bandopadhay

Abstract

The POCSO Act came as a respite for curbing the menace of child rape and childhood molestation by adults. However, the effectiveness is now questioned. The record of the State of West Bengal as an example establishes that the use of the Act is merely as a mode of expression of vengeance or threat for marriage, extortion of money among other ill intentions. At the same time, with change in the cultural pattern of the country early relationships are not uncommon. However, if the provisions of this Act are strictly implemented these innocent relationships will be penalizing. The paper seeks to understand whether there is a need to have an exception to the application of the Act in cases of childhood romantic relationships by trying to grasp whether increased rate of crimes is as a result of this strict application and whether this Act is really merely a tool for revenge by the parents.

The paper is neither to justify any illicit or childhood relationships especially involving sexual intercourses nor to propagate the same, but is intended towards portraying the ground reality and the changes in the society that have emerged over the years. The gradual acceptance and subsequent amendment of the laws with its adequate interpretations to suit the “best interests of the child” towards successful attainment of the objectives behind this legislation as enshrined in the Preamble of the Act and upheld in catena of judgements is the pivotal aim of this paper. Finally, the question whether incorporation of an age group for “consent” by children for consensual sexual relationship under a new category as has been proposed lately can bring about an overall success of the Act will form the edifice as well as the conclusion of this paper.

Keywords: consent, age categorisation, autonomy, privacy, POCSO Court

Introduction

The enthusiasm and sigh of relief that the country was faced with after the enactment of the POCSO Act in 2012 was unmatchable. The law was to ensure deterrence in the society for the acts indulged in with sexual intent against children below 18 years. However, the POCSO cases after 4 years of the Act are mostly false cases that the courts are faced with which challenges the novelty of the Act and the purpose for which it was brought now seems farce. There are several reasons attached to this failure, but the major being the cases of teenage romantic relationships often involving sexual behaviors which creates apprehensions in the families and the societies leading to slapping of false cases under this Act. Surveys conducted by
various organizations in various capacities is witness to this fact.\(^1\)

Recognizing this proposal shall certify 2 concerns: *firstly*; give respect to the right to a dignified life of the adolescents guarantying them their right to autonomy over body and therefore consent for the same and *secondly*; shall reduce the number of false cases the Special Courts are faced with every year (if not every month) which otherwise affects the veracity and effectiveness of the Act, since the ultimate faith of such cases lead to marriage.

Thus, if the law recognizes such relationships as valid in the very first place, the society shall be conditioned accordingly because we need to realize that the world has changed and teenagers, whether we like it or not, are sexually active. They cannot be dragged to court over it\(^2\), in the words of activist Enakshi Ganguly of the HAQ Centre for Child Rights.

**Duality of Indian laws and the road ahead**

India lacks a uniform age recognizing juvenility, different Acts have different age mentioned therein for considering a person as a child. Hindu Marriage Act (18,21), Juvenile Justice Act (18), Child Marriage (Restraint) Act (18,21), POCSO (18), Child Labour (Prohibition and Regulation) Act (14), Indian Majority Act (18), Factories Act (15), IPC \([\text{doli incapax (below 7 years)}, \text{doli capax (7 years -12 years)}]\), Marital rape (above 12 years consensual). Thus, when there is no uniform age of juvenility, there is no adherence to UNCRC, the main argument being put forward by critics of the new proposal of having a new age of consent categorisation under POCSO.

The Juvenile Justice (Care and Protection) Act has been amended to make a new categorization of the age group of 16 to 18 years where the juvenile with knowledge consents to committing a grievous offence and conducts it. Here the legislature and the parliamentarians have accepted age of 16 as an age of consent for committing the offences. So, the concept of age of concept has keyed the Indian legal system with this amendment. In POCSO, which is yet another Act for the children below 18 years, this concept must be adopted. A different category recognizing the age of consent is needed i.e. 16-18 years and 12-15 years of age with an age gap of 4-5 years between the partners. In fact, as mentioned above, there are proposals of incorporating 2 different age groups for consenting age, like 12-15 and 16-18 years with certain conditions.

**Formulations of the judges of the Special Courts**

In order to restore faith in this Act and to let remain the strict attitude towards genuine POCSO cases, there is a new proposal which has been initiated by the honorable judges of the Special Courts dealing with such cases at the district level and accepted subsequently by many child rights activists.

**New age categorisation**

National Commission for Protection of Child Right (NCPCR) had stressed on the need for the law to recognise consensual sexual exploration

\(^1\)Surveys conducted by NLSIU Bangalore in the States of Karnataka and Assam, WBNUJS in West Bengal, etc.

among adolescents by decriminalising it when it is between:

- Children above 12 years when the age-gap was less than two years and
- Children above 14 years when the age-gap was less than three years. 3

In the UK, the age of consent is 16 years. In the US, it varies from 16 to 18 across states. It is 14 years in Germany and Italy, and 15 in France 4. In Korea it is 13 and Mexico has it as low as 12. 5

This categorisation shall facilitate the youngsters to live their lives in a dignified manner with freedom of choice being ensured and the courts being faced with less false cases.

**International obligations**

The best interest of the child which is the utmost outcome the Act seeks as established by UNCRC 6 lies in having a liberal interpretation of the provisions- in a way of application of the golden rule of interpretation where the object and purpose of the Act be upheld. Such an approach shall enable success of the Act by ensuring fruitful development of the child. For this development of the child his or her right to privacy and confidentiality 7 must be protected and respected by every person by all means and through all stages of a judicial process involving the child 8. This right 9 needs to be respected especially in case of adolescents which the courts have partially recognized and must continue to do so even though not expressly mentioned under the constitution 10.

**Children’s autonomy over the body**

In order to ensure this, autonomy over body is needed by ensuring an age of consent as proposed. The right of privacy has evolved to protect the freedom of individuals to choose whether or not to perform certain acts or subject themselves to certain experiences. 11 In USA, this concept has developed into ‘liberty’ which is protected under the Due Process Clause of the 14th Amendment 12 calling for a similar development in the Indian legal system under Article 21 of the Constitution. Furthermore, it is important to recognize that sexuality is an integral part of the personality of every human being. Its full development depends upon the satisfaction of basic human needs such as the desire for contact, intimacy, emotional expression, pleasure, tenderness and love. Sexuality is constructed through the interaction between the individual and social structures. Full development of sexuality is essential for individual, family and society.

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8Preamble, United Nations Convention on the Rights of the Child (And whereas it is necessary for the proper development o the child that his or her right to privacy and confidentiality be protected and respected by every person by all means and through all stages of a judicial process involving the child.)


12Roe v. Wade [410 U.S. 113 (1973)].
interpersonal, and societal well being\textsuperscript{13} which in turn ensures the same kind of parameters of best interest of the child being fulfilled. Sexual rights are universal human rights based on the inherent freedom, dignity, and equality of all human beings. Since health is a fundamental human right, so must sexual health be a basic human right.\textsuperscript{14} Recognizing this shall enable the success of the object and purpose of the Act as enshrined in the Preamble.

\textbf{Consent as a key element}

The key aspect to be harped upon here is consent. In order to ensure this, a simple test can be put forth. If the accused in section 164 CrPC\textsuperscript{15} statement confirms of a romantic relationship and sexual acts which is similarly confirmed by the so called victim in his or her section 164 CrPC statement as well as in the cross examination the same must be given the due respect of consent. This shall ensure right to freedom of expression and right to life. Acknowledging that consent is immaterial for offences under POCSO, the realization needed is that the same must be confined to instances of victimization and sexual abuse and not for consensual sexual relationships which is not victimization unless the contrary is proven through instances of coercion\textsuperscript{16} which cannot be justified at any given moment of time in life\textsuperscript{17}. The Act otherwise infringes upon the right to dignity and bodily integrity, freedom, of expression, right to life and right of privacy of the adolescents. The honorable courts have accepted the age consent at various instances.

\textbf{Interpretation of Case laws}

In a case in Pune, the special court relied on various judgments by the supreme court and the high courts that no offence of rape can be made out if the girl is above 16 years of age and there is consensual sexual relationship. The court cited medical and other evidence while observing that the girl was above age 16 and was a consenting party.\textsuperscript{18} In the case of \textit{S. Varadarajan v. State of Madras}\textsuperscript{19}, though the age of consent though as per law was 18 years, when the girl eloped with the accused, she was approximately 17 years and 9 months old. However, the matter was finally heard and the accused was convicted realizing that the girl who takes the decisions.

In \textit{State v. Suman Dass}\textsuperscript{20}, a 15-year-old girl left home and married a 22-year-old man. Her mother filed a complaint alleging that the man had kidnapped and sexually assaulted her. In court, the girl admitted to having gone willingly and to having sexual intercourse. Judge Dharmesh Sharma was of the view that a strict interpretation of the POCSO Act 'would mean that the human body of every individual under 18 years of age is the property of

\begin{itemize}
  \item World Association For Sexual Health, Declaration of Sexual Rights (Adopted in Hong Kong at the 14th World Congress of Sexology)(August 26, 1999).
  \item ibid.
  \item Recording of confessions and statements.
  \item Right to sexual freedom: Sexual freedom encompasses the possibility for individuals to express their full sexual potential. However, this excludes all forms of sexual coercion, exploitation and abuse at any time and situations in life, World Association For Sexual Health, Declaration of Sexual Rights ( Adopted in Hong Kong at the 14th World Congress of Sexology, August 26, 1999).
  \item TNN, “Child’s consent immaterial in deciding guilt in sexual assault case: Court”, \textit{The Time of India}, July 24, 2015.
  \item \textit{S. Varadarajan v. State of Madras}[1965 SCR (1) 243].
  \item \textit{State v. Suman Dass}[Decided on 17.8.2013 by Dharmesh Sharma, ASJ01, New Delhi District, Patiala House Courts, New Delhi SC No. 66/13].
\end{itemize}
State and no individual below 18 years of age can be allowed to have the pleasures associated with once [sic] body.’ He reasoned that: ‘The words ‘penetrative sexual assault’ used in section 3 of the POCSO Act goes to suggest that where physical relationship or sexual intercourse had taken place with consent of a girl child which is not derived by coercion or not in the nature of an assault or use of criminal force, or which is not resulting in exploitation, or where the consent is not obtained for unlawful purpose, no offence within the ambit of section 3 of POCSO Act can be said to have been committed.’

The Bombay High Court in Sunil Mahadev Patil v The State of Maharashtra the court granted bail on the similar understanding and acknowledging the consent of the adolescent girl. Moreover, a South African court on the like matter of admitting the age of consent of children for sexual conduct to be 12 years passed a verdict for striking down the law which restricted the same.

It is ironical to note that the Hindu Marriage Act has recognized child marriage implicitly under section 12 and subsequently POCSO disallows sexual intercourse with persons below 18 years at the same time exception to section 375 IPC does not recognize rape beyond 15 years if the girl is the wife. Further, legitimacy of a child born out of a voidable marriage in this that being of a minor couple cannot be questioned, which a way permits sexual intercourse. There are contradictions in these provisions and hence policy ambiguities exist which certainly does not seem justified.

Sexual pleasures in an integral part of humans’ lives whose urges can occur at any moment in time, restricting that part of healthy living are certainly not the goal of laws. Whether married or not, if one of the partners is sent to jail, it shall have ill effects on the mental well being of the other partner which certainly is not the outcome the law seeks and is definitely against the preamble of the Act enacted towards protecting the best interests of the child.

The other pertinent concern which might bring apprehensions to the minds of many is what if the girl gets pregnant as a result of such relations? In order to address such issues, it is pertinent to note that in such unfortunate cases we need to act as per the Chandrakant Jayantilal Suther v State of Gujarat verdict of the Supreme Court by allowing abortion of the foetus in case the mother is a minor girl keeping in mind her future and career even

22Sunil Mahadev Patil v The State of Maharashtra[ABC 2016 (1) 34 BOM].
23Teddy Bear Clinic for Abused Children v Minister of Justice and Constitutional Development[2013] ZACC 35].

24Hindu Marriage Act,1955 (Act 25 of 1955)(s.16 (2) - Where a decree of nullity is granted in respect of a voidable marriage under section 12, any child begotten or conceived before the decree is made, who would have been the legitimate child of the parties to the marriage if at the date of the decree it had been dissolved instead of being annulled, shall be deemed to be their legitimate child notwithstanding the decree of nullity).
26Protection of Children Against Sexual Offences Act, 2012 (Act 32 of 2012). (And whereas it imperative that the law operates in a manner that the best interest and well being of the child …. to ensure the healthy physical, emotional, intellectual and social development of the child.)
27Chandrakant Jayantilal Suther v State of Gujarat[R/SCR.A/4255/2015].
though it contradicts the provisions of the MTP Act in order facilitate a healthy life for the girl.

**Probable Solutions**

There needs to be check on such cases at the initiation of these at the initial stages of the cases i.e. at the time of investigation after lodging of FIR for framing of the charge-sheet. 

There must be little more stringent guidelines for investigation for POCSO cases which shall ensure the filtering of genuine cases only. The reasons for complaint must be of the nature which shall be cogent and the investigation shall exactly be witness to that fact to augment further proceeding with that case.

We need to recognize that Marriage is not the solution, but recognizing this freedom and liberty is what is sought out of this proposal. POCSO Act has sadly conflated child sexual abuse and child sexuality as is now understood after its implementation. Thus, if this proposition based on the true events as unfolded now is accepted it shall reduce the unnecessary cases of POCSO which overburdens the courts and ultimately serve no purpose in ensuring justice to the victims of such offences. If this is not so conceded there would be a tendency to commit graver offences which shall in return affect the society.

**Conclusion**

The paper is neither to justify the illicit/childhood relationships especially involving sexual intercourses nor to propagate the same, but is intended towards accepting the changes in the society which have cropped up in these years and modifying the laws and its interpretations accordingly for the best interests of the child.

The Supreme Court has given a ruling allowing the women living in live-in relationships for long period of time to claim maintenance in case of separation. The apex court has confirmed in another case that there lies a right to inherit property of a child born out of a live-in relationship. These forward looking decisions of the court embodies the tendency in the legal system to allow societal developments to percolate down the existing laws to bring adequate changes. The judicial orthodoxy has been diluted with judgments like Triple Talaq and Right to Privacy this year which serves as the perfect juncture to accept a modification in regard to the rights of the young souls of our country. The proposal for incorporating the age of consent for children under a new category under POCSO Act shall enable the overall success of the Act and the objectives of the legislation will be accomplished.

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28Protection of Children Against Sexual Offences Act, 2012 (Act 32 of 2012). (Preamble-And whereas it is imperative that the law operates in a manner that the best interest and well being of the child …. to ensure the healthy physical, emotional, intellectual and social development of the child.)  
30Tulsa & Ors. vs. Durghatiya& Ors., Appeal (civil) 648 of 2002.
Shielding the unregistered marks: a judicial analysis

Atish Chakraborty

Abstract
With the advent and growth of economy, trade has been consistently on the rise & such rise has been increasing at a steady pace. To recognize a product as one’s own, the traders tend to associate themselves with the name by which their product is commonly known to the masses and it is this name which is regarded as Trade Mark. The Trade Mark Act, 1999 along with the Trade Mark Rules, 2017 gives an array of rights related to Trade Mark. The principal legislation along with the rules aims at providing plenty of rights to the registered trade mark holder. Going by this notion, does this mean that those who do not have a registered Trade Mark are not subjected to any right or they are disenitled from getting any right? Simply put, the answer is no, it isn’t so. Those who do not possess a registered trade mark can also stop the other person from using the identical or similar trade mark by invoking the Doctrine of Passing Off. This doctrine is based on the principle that no one has right to represent one’s goods as the goods of other. To invoke the remedy of passing off, the complainant must prove that he is the owner of the mark, and the mark in question has acquired goodwill in the market. This article delves into the concept of passing off, the main elements that constitutes passing off, the evolution of law of passing and the role of judiciary to uphold the concept of passing off in the Indian Judicial system. Though, the person who has not registered the trade mark gets the rights but these rights are per se limited. In order to prove that an action of passing off holds ground, one has to show that reputation and goodwill are attached to the trademark that is in question. For an action of Passing off there as such is no criteria or definition that is expressly provided in any of the statutes. So it becomes a cumbersome job for the plaintiff to proof the same and even judiciary takes different approaches in different cases with regard to a passing off action.

Keywords: Passing Off, Infringement, Goodwill, Reputation, Misrepresentation

Introduction
The common law tort of passing off, is an indispensable remedy which affords protection to the unregistered trademarks which developed in England historically, to protect the goodwill of the traders. The Doctrine of Passing Off is often invoked to prevent the opposite party to use such identical or similar mark that isn't registered. According to Lord Halsbury, it is based on the principle that “no one has right to represent one’s goods as the goods of other”1. To invoke the remedy of passing off, the complainant must proof that he's the owner of the mark, and the mark in question has acquired goodwill in the market.

Further, it is also necessary to prove that the falsification has been done by the defendant and as a result of which the complainant has suffered irreparable loss and damages. Thus, one can regard an action of passing-off as the species of unfair trade practice by virtue of which a person, by means of deception makes an attempt to obtain an unfair economic advantage of the name that the opposite party has established for him in an exceedingly explicit trade or business.

Passing off is often done by exploitation of the brand, trade to induce the potential purchasers to believe that his merchandise or business were same as those of complainant. The wrong lies within the falsity done by the suspect against the complainant. The falsity aims at deceiving the potential consumers of the products or services. This may be done through confusing or deceitful use of the trade names, marks or alternative indications employed by the complainant in respect of such merchandise or services.

Further, the principle enshrined in an action of passing off is that “trading should not solely be honest however it should not even accidentally be dishonest.” Hence, it is often said that an action of passing off aims to guard business, goodwill and to confirm that the purchasers isn’t exploited due to any kind of dishonest commercialism.

An action of passing off is a Statutory Right. The Apex Court of our country has time & again laid down that in no uncertain terms a passing off action to enforce the plaintiff’s right is independent of a statutory right to trade mark and it is against the conduct of the defendant which leads to or is intended or calculated to lead to ‘deception’. In the case of Wander Ltd it was held that passing off could be regarded as a species of unfair trade competition by virtue of which one person through deception makes an attempt to get economic advantage of the name that another has established for him in an exceedingly explicit trade or business through consistent effort. Thus, a passing off action is thought to be an action for deceit.

Passing off, however doesn't shield the interest of the owner of the trademark however it does protect the interest of the buyers. In the case of Seiko Time Canada Ltd, the Apex Court has held that the “the simple wrong of selling one's goods deceitfully as those of another is not now the core of the action. It is the protection of the community from the consequential damage of unfair competition and unfair trading.”

**Passing off in India**

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Wander Ltd. v. Antox India (P) Ltd. 1990 (Suppl.) SCC 727.

In India, passing off is crucial – firstly, since the registration of trade marks in India is a time-consuming process. Further, an application to register a trade mark can often take several years, due to the Indian Trade Marks Registry’s slow pace of functioning. This has often resulted that the Indian courts have been bound to hear a number of passing off cases where trade mark infringement could not be alleged only because the mark in question was pending registration and at times such pendency was for quite a long period of time. In this regard, it is pertinent to note the recent case of ITC vs. Godfrey Phillips\(^ {11}\), where it was observed by the Calcutta High Court that the suit filed by the plaintiff ‘emanates from two separate trademark applications, one registered and other pending registration’, and that the plaintiff was suing for ‘passing off’ of its unregistered label mark since such mark was pending registration for a considerably long period of time and that the plaintiff was left with no other option than to go for an action of passing off.

**Historic glimpse of the doctrine of passing off in India**

Passing off actions existed in India much before the enactment of the current Trade Marks Act, 1940. To institute a suit of passing off, one was to firstly establish a title on the trade mark. Secondly, one would have to show that the mark obtained a name and goodwill in the market. Thirdly, it was to be shown absolutely that the suspect had used a mark just like the mark belonging to the complainant and has thus passed his merchandise or sought to pass off his merchandise as those of the plaintiff\(^ {12}\).

The modern law pertaining to passing off and its development as part of common law may be understood as follows. It originated as an action in tort, to redress the wrongful conduct of a defendant in passing off his goods as the goods of the plaintiff, by using the trade name or trade mark of the plaintiff, in order to induce potential buyers into believing that his goods or business were those of the plaintiff. The tort was in the misrepresentation by the defendant to the potential buyers of his goods that the goods were of the plaintiff\(^ {13}\).

The Trade Marks Act, 1958 and Trade Marks Act, 1999 provide for passing off actions. “**Section 27 of the Trade Marks Act, 1999 states about no action for infringement of an unregistered trade mark.**

1. No person shall be entitled to institute any proceeding to prevent, or to recover damages for, the infringement of an unregistered trade mark.

2. Nothing in this Act shall be deemed to affect rights of action against any person for passing off goods or services as the goods of another person or as services provided by another person, or the remedies in respect thereof.”

**Clause (2) of Section 27 “preserves the rights and remedies of the prior user. It states as even if the**


\(^ {12}\)Kailasam KC, *Venkateswaran on Trade Marks & Passing Off* (Lexis Nexis, Gurgaon) 2015, p.1190.
application for the registration of trade mark has been filed by the subsequent user and the same got the registration, even then the prior user can file for passing off action under Section 27(2).”

In the noted case of *Rupa & Co. Ltd vs. Dawn Mills Co. Ltd*, the defendant was in the business of manufacturing underwear under the name “Dawn”, which was found to be quite similar to the plaintiff’s manufactured underwear ,“Don”, which in turn created immense confusion in the minds of the people due the layout and colour combination since they were too similar to the plaintiff’s product and hence an order of injunction was granted.

This concept was further elaborated upon in the case of *Honda Motors Co. Ltd vs. Charanjit Singh & Others*, wherein the plaintiff had been using the trademark "HONDA" for automobiles and power equipment. The defendants began to use the mark "HONDA" for their pressure cookers. The plaintiff brought an action of passing off against the defendants. It was held by the Court that “the use of the mark "Honda" by the defendants couldn't be said to be honest, and that its usage by the defendant was likely to cause confusion in the minds of the public and the injunction was granted for the same”.

In *Koninkhijke Phillips Electronics vs. Kanta Arora*, Justice Thakur had laid down the following propositions: “Section 27(2) makes it abundantly clear that registration of a mark in the trade mark Registry is irrelevant in an action of passing off and the mere presence of the mark in the Register does not prove its user by the person in whose name the same has been registered.”

**Passing off action: Ingredients**

The law of passing off arises once there's falsity, goodwill is injured within the course of trade, that causes injury to the trade or goodwill of the owner by whom the action is brought. The characteristics of passing off are mentioned and explained in a variety of cases.

In the case of *Erven Warnik B.V. vs. Townend*, Diplock, J. laid down five main characteristics for which an action of passing off can be invoked. They are as follows-

1. Misrepresentation;
2. Created by someone in course of trade;
3. To prospective shoppers of his or final shoppers of products or services equipped by him;
4. That was calculated to injure business or goodwill of another trade (in the sense that this can be moderately predictable consequence); and
5. That caused actual injury to a business or goodwill of the person by whom the action was brought.”

Further, there are three main elements of passing off that are conjointly referred to as the “classical trinity”

18Lord Oliver continued that “The tort of passing off may be expressed in terms of the elements that a claimant (then called a “plaintiff”) has to prove. There are three such elements known as “the classic trinity”: They are-

a) The claimant’s goods or services must have acquired a goodwill or reputation in the market by reference to a name, logo, get-up or some other distinguishing feature.

b) There is a misrepresentation by the defendant (whether or not intentional) in that he adopts a trade name, logo or other indicia that is the same or similar to the claimant’s
Harrodian School\(^{19}\) the classical trinity test involves the elements namely “reputation, deception & damage”.

Once a falsity is established it's affordable to infer that the purchasers of the products bought them on it falsity unless there’s proof to the contrary.

In Reckitt & Colman’s case\(^{20}\) which is commonly referred to as the “Jif Lemon Case” it was held that wherever it absolutely was declared by the House of Lords that in line with the law relating to passing off that “No man may pass off his merchandise as those of another. It may be expressed in terms of the elements which the plaintiff in such an action has to prove in order to succeed. Firstly, goodwill must be established or the name connected to merchandise or services that he provides within the mind of buying public by association with the characteristic “get up” under which his particular goods or services are offered to the public as distinctive specifically of the plaintiff goods and services. Secondly, he must demonstrate a misrepresentation by the defendant to the public leading or likely to lead the public into believing that goods or services offered by him are goods and services of the plaintiff. Thirdly, he must demonstrate that he suffers or likely to suffer damage by reason of erroneous belief engendered by the defendant’s misrepresentation that the source of defendant’s goods or services is the same as the source of those offered by the plaintiff. There are two necessary elements, first a misrepresentation expressed or implied but not necessary fraudulent and second a consequent likelihood of damage to the plaintiff’s goodwill.”

In Baker Hughes Ltd. vs. Hiroo Khushalani\(^{21}\) the Delhi High Court had held that the plaintiff in an action of passing off must be able to establish the following elements:

1. The plaintiff has acquired a reputation or goodwill in his goods, name or mark;
2. A misrepresentation, whether intentional or unintentional, which proceeds from the defendant by the use of the name of mark of the plaintiff or by any other method or means and which leads or is likely to lead the purchaser into believing that the goods or services offered by the defendant are the goods and services of the plaintiff; or that the goods and services offered by the defendant are the result of the association of the plaintiff;
3. The plaintiff has suffered or likely to suffer damage due to the belief endangered by the defendant’s representation.

These three elements of passing off namely the reputation of goods, possibility of deception and likelihood of damage have been upheld by the Apex Court in the case of Laxmikant V. Patel vs. Chetanbhat Shah.\(^{22}\)

Jurisdiction of courts in an action of passing off

Section 134(2) of the Trade Marks Act, 1999 states that “for the purpose of clauses (a) and (b) of sub-section (1), a” District Court having

\(^{19}\)Harrods v. Harrodian School (1996) RPC 698.
\(^{20}\)Reckitt & Colman Ltd v Borden Inc [1990] 1 All E.R. 873.
\(^{21}\)Baker Hughes Ltd. v. Hiroo Khushalani(2000) 102 Comp Cas 203 (Del).
"jurisdiction" shall, notwithstanding anything contained in the Code of Civil Procedure, 1908 or any other law for the time being in force, include a District Court within the local limits of whose jurisdiction, at the time of the institution of the suit or other proceeding, the person instituting the suit or proceeding, or, where there are more than one such persons any of them, actually and voluntarily resides or caries on business or personally works for gain.” It means that a suit for passing off can be filed where the proprietor(s) or the owner(s) lives or carries the business.

**International perspective to passing off**

It is a well settled position that an Indian based plaintiff who can establish his wide consumer base in India can easily prove goodwill in the event of passing off cases. However, the question arises about the position of a foreign based organisation, for instance UK based Fortnum & Mason or US based food chain White Castle, which has neither any operation in India nor has applied to register their trade names in India.²³ Will the laws of India prevent a local trader from opening a store named Fortnum & Mason or a local fast food stall being named White Castle?²⁴Can those foreign organisations argue that its reputation or good will is being Sopped over or damaged?²⁵ In the Indian setting, the foreign entities are most likely to succeed in such a suit. The subsequent sections will elaborate upon the India’s liberal understanding of goodwill.

**The Indian Approach to Goodwill**

Goodwill of a business not only depends on the locality but also other circumstances.²⁶ The concept of goodwill shouldn’t just be lifted bodily and applied to passing off cases.²⁷ “Goodwill” and “reputation” were widely used interchangeably by the Judges and the main focus was nevertheless the determination of reputation. India’s attitude towards this was extremely liberal to that extent that even evidences like advertisements were sufficient for passing off suits.²⁸

In *Kamal Trading vs. Gillette*,²⁹ Gillette sued a local trader for the use of the mark ‘7 O’clock’ on the trader’s toothbrushes which Gillette used on razor blades. Albeit the defendant argued that the goodwill of Gillette had no existence in India at all, the court disregarded the argument and held that ‘the goodwill or reputation of a product is independent of its availability in a particular country. However, even if certain goods weren’t freely available in India, they could still acquire a ‘wide reputation’ through the use of advertisements in newspapers and magazines,

²³ A search of the website of the Indian Trade Marks Registry <http://ipindiaonline.gov.in/txmrpublicsearch/frmmain.aspx> conducted on 7 June 2014 in “Nice Classes 35 (for Fortnum & Mason) and 43 (for White Castle) confirms this. However, a person with no ostensible links to White Castle applied to register the White Castle logo in October 2013 (Application No 2614755). The mark is currently pending registration. Email queries by the author to White Castle’s trade mark counsel, seeking confirmation on whether the applicant is a squatter, have not been answered.”

²⁴ A list of references to White Castle in popular culture can be found at <http://www.whitecastle.com/cravers/pop-culture>(08 November, 2018).

²⁵ This expression has been used in, *inter alia, Esanda v Esanda* [1984] 2 NZLR 748 (High Court of New Zealand) 752; (1984) FSR 96, 101.


²⁷ *Apple Computer Inc v. Apple Leasing Industries* (hereinafter APPLE case),(1992) 1 Arb LR 93 (Delhi High Court) [119].

²⁸ *Apple Computer Inc v. Apple Leasing Industries* (hereinafter APPLE case),(1992) 1 Arb LR 93 (Delhi High Court) [119].

²⁹ *Kamal Trading v. Gillette*(1988) 8 PTC 1 (Bom HC).
which per se is protectable.\textsuperscript{30} Using the same principle, the defendants were restrained from using the mark ‘APPLE’ despite its negligible presence in India.\textsuperscript{31} This view is indeed in contrary to the view adopted by the English Judges however appropriate keeping into consideration the exchange of information, and the movement of newspapers, magazines, videos, motion pictures and movement of people across boundaries.\textsuperscript{32}

In the famous case of William Grant vs. Mc Dowell,\textsuperscript{33} the same principle was re-iterated by the Court while holding that Glenfiddich whisky had caused a spill-over reputation in India due to advertisements in the in-flight magazine of Air India as well as in various foreign magazines available in India. The reputation was extended to the shape of the bottle and the defendant were barred from selling bottles which are shaped in a similar manner. The same principles were subsequently upheld in various cases like Calvin Klein vs. International Apparel\textsuperscript{34}, NR Dongre vs. Whirlpool (hereinafter referred to as “Whirlpool case”),\textsuperscript{35} Dunhill vs. Makkar,\textsuperscript{36} Jolen vs. Doctor,\textsuperscript{37} Las Vegas Sands vs. Bhasin,\textsuperscript{38} Interestingly, the court distinguished between the concepts of “reputation attached to a trade mark in India” from “the use of a trade mark in India”, stating that advertisements by ‘a foreign trader in respect of a product need not be associated with the actual use of the product in order to establish reputation.\textsuperscript{39} The Whirlpool case has been the landmark case in the India in Jurisprudence in regards with the concept of goodwill. In fact, its ratio was further extended to include spill-over reputation through the internet\textsuperscript{40} and even through other social media sources.\textsuperscript{41}

Notwithstanding, even though the courts have progressively interpreted the provisions regarding goodwill, they accept spill-over reputation claims only if there are adequate evidence for the same. There have been situations where the cases have been dismissed on the grounds that the magazines were not read by Indian public\textsuperscript{42} or that there were no evidences that there has been spill-over reputation prior to the filing of the suit.\textsuperscript{43} Post the joining of India in Madrid System for International Registration of Marks in April, 2013, there has been greater digitisation in the aspect of trade mark applications.\textsuperscript{44} This has reduced the time taken to obtain trademark in India to a great extent.

\textsuperscript{30}ITC v Godfrey Phillips AIR 2014 Cal 19.
\textsuperscript{33}William Grant v. Mc Dowell[1994] FSR 690 (Delhi High Court).
\textsuperscript{34}Calvin Klein v. International Apparel[1996] 16 PTC 293 (Calcutta High Court).
\textsuperscript{35}NR Dongre v. Whirlpool AIR 1995 Del 300 (Delhi High Court).
\textsuperscript{36}Dunhill v. Makkar,(1999) 19 PTC 294 (Delhi High Court).
\textsuperscript{37}Jolen v. Doctor(2002) 25 PTC 29 (Delhi High Court).
\textsuperscript{38}Las Vegas Sands vs. Bhasin(2012) 51 PTC 260 (Delhi High Court).
\textsuperscript{39}Las Vegas Sands vs. Bhasin(2012) 51 PTC 260 (Delhi High Court).
\textsuperscript{40}EasyJet v.EasyJet,(2013) 55 PTC 485 (Delhi High Court).
\textsuperscript{41}Cadbury UK Limited &Anr. v. Lotte India Corporation Ltd, (2014) 57 PTC 422 Del.
\textsuperscript{42}Roca v. Gupta, (2010) Indlaw DEL 898 (Delhi High Court) (hereinafter referred to as “Roca case”).
\textsuperscript{43}Chorion v.Ishan (2010) 43 PTC 616 (Delhi High Court) (hereinafter referred to as ‘Noddy case’).
**Observation of Change on a Case to Case Basis**

It is pertinent to note that the Indian Courts have restrained spill-over reputation in cases of dissimilar goods and services too. This level of progressive stance taken by Indian courts could be understood by the following reasons:

(a) to promote fair play and honesty in commerce and to protect the creators of brands;

(b) to prevent the consumers from being deceived;

(c) rejection of the strict English approach by other countries in the international arena.

The Courts have emphasised upon the importance of honesty and the impacts of dishonest cumulative fraudulent acts in the Gillette and the Apple cases. It was held in Apple case that:

“It would not be right for courts to permit the persons who have spent considerable time, effort, money and energy in building up a name sufficient to have an impact to lose control over such an impact by improper use of the very same or colourably similar name by another in an unauthorized manner or even dishonestly”.

Yet again the principles of commercial honesty were upheld in the famous Benz case wherein it was held that law could not ‘protect a person who deliberately sets out to take the benefit of somebody else’s reputation’. Especially so when the reputation extends worldwide. The interest of the consumer has always been the concern for the Courts in India which was expressly enunciated by the Delhi High Court in *Mathys vs. Sunthes*. In fact, the court reasoned out that the rejection of English approach was necessary to protect the interest of the consumers.

In the Apple case, the Court referred to cases of several other countries *C&A Modes v. C&A (Waterford)* (Irish Case), *Fletcher vs. Fletcher* (Australian case), *Esanda vs. Esanda* (New Zealand case), *Orkin vs Pestco* (Canadian case) and held that India needs to match up with the said countries in order to prevent the public from getting deceived.

The realistic groups however criticize and fear the influence of a Judge’s personal socio-economic background in deciding in the passing over cases as there are no statutory provisions regarding the issue. One of the best ways to overcome this fear could be to borrow certain provisions from Section 11 of the Trade Marks Act 1999, which lays down the rules that guide the determination if a trade mark is regarded as a well-known trade mark for registration and the conditions that

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47*Daimler-Benz v. Hybo Hindustan* AIR 1994 Del. 239.
49*C&A Modes v. C&A (Waterford)* [1978] FSR 126 (Supreme Court of Ireland).
50*Fletcher v. Fletcher* [1982] FSR 1 (Supreme Court of New South Wales).
51*Esanda v. Esanda* [1984] FSR 96 (High Court of New Zealand).
52*Orkin vs Pestco* (1985) 50 OR (2d) 726 (Ontario Court of Appeal).
53*Trade Marks Act 1999* (India), ss 11(6). “The criteria are:
1. The knowledge or recognition of that trade mark in the relevant section of the public including knowledge in India obtained as a result of promotion of the trade mark.
2. The duration, extent and geographical area of any use of that trade mark.
should not be considered for making such a
determination. Surprisingly, these provisions are
similar to the recommendations made on Paris
Convention. There are chances of an undeserving plaintiff
easily convincing a judge to hold in favour of him
in a spill over reputation case. However, the
plaintiff ought to further prove the likelihood of
misrepresentation i.e. ‘a real risk that a substantial
number of persons among the relevant section of
the public would in fact believe that there was a
business connection between’ the plaintiff and the
defendant. The Supreme Court finally decided
the factors that should be taken into account
before giving a judgement in a spill-over
reputation case, which are as follows:
“(a) The nature of the marks;
(b) The degree of resemblance between the marks;
(c) The nature of the goods in respect of which they are used;
(d) The similarity in the nature, character and
performance of the goods;
(e) The class of purchasers who are likely to buy
the goods, their education and intelligence;
(f) The mode of purchasing the goods; and
(g) Any other surrounding circumstances which
may be relevant.”
The Apex Court further held that the weight-age
that needs to be given to each factor and that such
factors may vary on a case to case basis.
It can be inferred from the above sections that
Indian courts can be easily played with and the
foreign traders could ‘legally harass’. To sum up,
it can be said that there should be a requirement to
produce a strong evidence of spill-over reputation
along with the rigorous need of requiring the
plaintiff to prove deception and the likelihood to
cause damage.

Conclusion
To conclude it can be said that the Indian courts
have consistently been recognising spill-over
reputation issues, even in the absence of any
goodwill, as a sufficient ground to fulfil the first
requirement of the classical trinity test as to the
3. The duration, extent and geographical area of any
promotion of the trade mark, including advertising or
publicity and presentation, at fairs or exhibition of the
goods or services to which the trade mark applies.
4. The duration and geographical area of any
registration of or any application for registration of that
trade mark under this Act to the extent they reflect the
use or recognition of the trade mark.
5. The record of successful enforcement of, the rights in
that trade mark, in particular, the extent to which the
trade mark has been recognised as a well-known trade
mark by any court or Registrar under that record.”
Section 11 (7) states that “while determining as to
whether a trade mark is known or recognised in a
relevant section of the public’ under s 11(6), the
following shall be taken into account:
(i) the number of actual or potential consumers of the
goods or services.
(ii) the number of persons involved in the channels of
distribution of the goods or services.
(iii) the business circles dealing with the goods or
services to which that trade.”

Joint Recommendation Concerning Provisions on the
Protection of Well-Known Marks, Article 2, adopted by the
Assembly of the Paris Union for the Protection of Industrial
Property and the General Assembly of the World Intellectual

Trade Marks Act 1999 (India), ss 11(9). These conditions are:
“(i) that the trade mark has been used in India.
(ii) that the trade mark has been registered.
(iii) that the application for registration of the trade
mark has been filed in India.
(iv) that the trade mark—
(a) is well-known in, or
(b) has been registered in, or
(c) in respect of which an application for registration
has been filed in any jurisdiction other than India.
(v) that the trade mark is well-known to the public at
large in India.”

57Cadila Health Care Ltd. v. Cadila Pharmaceuticals
58Khoday Distilleries Ltd. v. Scotch Whisky Association,
AIR 2008 SC 2737.
requirements in case of a passing off action. The Courts have been mindful as to the judicial trends which has been prevailing in other Commonwealth countries and of all modern advancements through which the reputation of a mark can go beyond the territorial borders. Thus, the tort of passing off in India continues to remain highly relevant even in the 21st century and can be regarded as one of the most sought after remedy which has stood the test of time and has proved to be an indispensable remedy consistently over the ages.

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VICTIM JUSTICE - A PARADIGM SHIFT IN THE CRIMINAL JUSTICE SYSTEM IN INDIA.

Surja Kanta Baladhikari

Thomson Reuters published this book titled ‘Victim justice - A paradigm shift in the criminal justice system in India’ written by G S Bajpai and Shriya Gauba in 2016 with ISBN:978-93-84746-68-1. It is spread over eight chapters on the topics namely the position of a victim and his position in the historical times, victim-oriented policies in specific system of the criminal justice system, voices of the survivors of crime, victim impact statements, expanding role of victim in the Indian criminal procedural justice system, Expanding role of victim in the Indian criminal substantial justice system and victim jurisprudence.

In Chapter II on ‘Victim in the adversarial system: Historical perspective’- The authors have discussed the concept of dharma and nyaya in the times of pre-British era about the criminal justice system. Subsequently, the authors have referred to the growth of adversary criminal justice in England instances of giving the victim a place during the gathering of evidence along with citizens in the court of law. The authors have also shown how gradually the victim lost the position from the criminal trial which changed from ‘lawyer-free trial’ to ‘lawyer-dominated trial.’ The victim who was once at the forefront of the initiative for prosecuting a crime stood marginalized referring a great detriment to the voice and role of the victim. The old code of Criminal Procedure of 1860 which did not mention the word victim rather concentrated on the procedure of investigation and trial, is also showcased.

In Chapter III on ‘Victim-oriented policies in select systems of Criminal Justice’ the authors have discussed about the emergence of victim justice from the UN Deceleration of Basic Principles of Justice for victims of crime and Abuse of Power, 1985 which ensures that a victims of crimes to be treated with compassion and respect, access to courts for prompt redressal making the process expeditious, fair and accessible, information to the victim of crime such as awareness to the victim about his rights, role of a victim in the judicial process, notice to the victim about the progress of the trial; allowing the victim to express/present his/her views/ and concerns at various stages of the trial; victim assistance for privacy and safety; prompt
disposition of the case, participatory rights to victim in a trial; victim’s entitlement to fair restitution after a crime; compensation; supply of material, medical, psychological and social assistance to the victim. These indicators are later used to access whether these rights are there for the victim in various models of criminal justice administration. In the same chapter, the authors also refer to the International criminal court, which is the first-ever international tribunal to accord victims their rights and their due recognition through the Rome Statute of ICC, 2002, which gave the victim participatory rights in the proceedings of the court. The authors have discussed the rights in detail regarding the statute. Further, the authors have given reference to the ‘handbook on justice for victims’ which is a guide for the policymakers to create substantial and procedural rights to give victims their due position in a criminal trial. Rights such as re-victimization of the victimization which happens due to the reaction of the stakeholders of the criminal justice system, are one of the important areas to re-look. Victim blaming, misuse of the right of cross-examination is another area that needs attention. Subsequently the authors have taken up the model of Japan and has discussed elaborately on the statutes and policies which Japan follows relating to Benefits to Victims of Crime (Crime Victim Assistance Act) 1980, Guidelines for Protection of Victims in 1996, Victim Protection Act 2000, Protection of Victims of Crime Act 2004, Japanese Code of Criminal Procedure. In the model of the United States of America, a discussion has started with Crime Victim’s Bill of Rights in 2004, case laws that have recognized the ‘victim’ as an essential part of the trial procedure. Other rights such as the right to be informed, the right to be present in the trial, the right to be heard, the right to timely restitution, right to protection from the accused have also been discussed. In the Dutch model ‘Vaillant guidelines,’ Terwee Act 1992, Dutch criminal procedure code, Victim rights Act 2000 has been referred to the showcase of how a victim of crime is being treated.

In Chapter IV on ‘Voices of the survivors of crime’ the authors have given detailed account of real victims of crimes such as acid attack, sexual assault, rape have narrated their vivid experience in dealing with the stakeholders of the criminal justice system stakeholders which includes police, court, doctor and other administrative persons in-charge of administering rights of the victim. The experiences which are penned down by the author also covers the concerns of safety and security of the victim who is threatened if they are witnesses against the accused. Further in-depth analysis also shows that a victim not only needs damage control to the body but also to the mind and soul.

In Chapter V on ‘victim impact & victim impact statements,’ the authors have emphasized the need and importance of victim impact statements, which can be used in three different stages of a trial, which are impact stage which is the first stage followed by the steps of recoil and reorganization. The steps explain the reaction of the victim who maybe in a complete state of denial or anger which is very important to be understood by the court to conclude. In the last
stage, which is about acceptance, reconciliation, and the aftermath needs of the victim to live a better life are associated with miseries of acute stress disorder and post-traumatic stress disorder, which also needs to be taken into consideration by the court before reaching a decision. The theory of victim impact statements has referred to the UN, seventh congress on Prevention of Crime and the Treatment of the Offender, which allows the victims to express there views and concerns for presentation and consideration at appropriate stages of the process. Further, the rationale behind victim impact statements, models of VIS used in the jurisdictions of the USA, Australia, along with advantages of VIS and necessity of VIS in motor accidents.

Chapter VI on ‘Expanding role of victim in the Indian criminal procedure -I (procedural justice)’, the authors have discussed a range of cases decided by the Indian judiciary to substantiate victim rights in the procedural system of justice with reference to reporting and investigation, medical examination of victims of sexual assault, position of victim during a trial, importance of engaging a private counsel during trial by the victim, victims right to dignity, comfort, confidentiality and protection, participation during plea bargaining, compounding of offences and also during appeal.

In Chapter VIIon ‘Expanding role of victim in the Indian criminal procedure – II (substantive justice)’, the authors have given various recommendations given by law commission referring to the power of public prosecutor for praying for compensation for the victim and enhancing the position of victims which was referred to the reports of the law commission in 1994 and 1996. The authors have also related to the old code of 1969 and 1898 while discussing the provisions. The remaining part of the chapter is devoted to understanding the concept of victim rehabilitation and the need for compensation through very first cases of nilabatibehra to D.K. Basu and that of Ankush Shivaji Gaikwad. The authors have also made detailed discussion about he present victim compensation scheme and have also conducted an empirical study on victim of negotiable instruments, Section 304-A IPC, 323, 356, 379, 341, 354, 451, 452, 377 and 498A, the study has showcased how the compensation quantum is decided and relief is given to the victims depicted through quantitative and qualitative data.

In Chapter VIII on ‘Victim jurisprudence,’ which is the last chapter of the book, the authors have tried to build a road map and discussed the changes in both the procedural and substantive law. The right to appeal where a victim has to seek leave from the High Court in Section 372 Cr.P.C., which not grants a victim a right but a discretion. Reference has also been given that there is no right in case of lesser quantum of punishment. Other discussions are made upon right to be informed of investigation, unguided power of awarding compensation, right to be informed, protection of victims, participatory rights, being rehabilitated, access to free medical aid and treatment, victim-offender mediation, notice to victim on withdrawal of prosecution are some of the glaring areas which the legislature
needs to consider to give the victims their due rights.

To conclude the book also has annexures of the research tools which are used in the studies conducted which not only encourages young researchers but also gives a direction. The book showcases the victim not only from the position in ancient times but also in the present time and how better a victim of crime may be treated by referring to original data and laws of other jurisdictions. I strongly recommend this book!!

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**Single use plastic fatality**

*Sanghamitra Baladhikari*

The usage of plastic has been identified as one of the most menacing factors affecting the environmental quality in the present times and thereby anticipating a future which is fatal for the biodiversity or habitat. Plastic wastes have been considered an emerging contaminant and it continues to pollute soil, sea and also harms aquatic animals to severe extent. Single use plastic wastes accounts for the most of the pollution levels around the world. Every year, about 300 million tons of single use plastic wastes are disposed. Single use plastics are also called disposable plastics. These are the plastic items which can be used only once. They include items such as straws, plastic cans, plastic bags, soda bottles, etc. Single use plastics are extremely toxic for the environment because most of it cannot be recycled. As a result, plastic gets buried in land or water and it releases toxic chemicals and adulterates the quality of the water and soil and results in loss of biodiversity and imbalance in food chain. According to the report ‘Single Use Plastic: A Roadmap for Sustainability’ published in 2018 by the *International Environmental Technology Centre*, it states that if the waste management techniques and consumption patterns of plastic do not undergo a dynamic improvement, then by 2050 there will be 12 billion tons of plastic litter in landfills and the natural environment.

Plastic wastes affect the environment at different levels. Firstly, the pollution that plastic usage causes to marine life in immense. Most of the plastic wastes are found floating in the top of the ocean and sea water. It intrudes into the water quality and unsettles the lives of the marine animals. An estimated 5 trillion pieces of plastic are floating in the world’s oceans from the Arctic to Antarctic. Large plastic items, such as discarded fishing rope and nets, can cause entanglement of invertebrates, birds, mammals, and turtles, salt-marsh grasses, and corals. Entanglement of aquatic species by plastic debris can cause starvation, suffocation, laceration, infection, reduced reproductive success and mortality. For example, recent reports claim that plastic has been found in one out of three sea turtles and about 100,000 deaths in marine life is caused as a result of single use plastic items.

According to the report “Plastics, Marine Litter and Circular Economy –Product Briefings” published in 2017 by *Institute for European News and Announcements*

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*Environmental Policy* it has been reported that ‘globally, 4.8 to 12.7mt of plastic enter the ocean annually just from mismanaged waste at coastlines’.

Secondly, single use plastic usage affects human life as much as the marine life. Researchers have proved that it takes a long time for plastic to decompose and the expanded polystyrene (*Styrofoam*) used to make plastic food containers release toxic chemicals and enters into animal issues and the food chain. This often results in severe damage in human bodies such as harm to nervous system, respiratory system and reproduction system.

Thirdly, plastic wastes also contribute in the degeneration of the aesthetic quality of beaches, sea-shores and land in general. It hampers the natural surroundings or the beauty of the place. This further hampers the tourism levels at a particular place. Various places have faced a sharp decline in the tourism economy due to stranded shorelines and foul odour in the surrounding areas. Thus, it is essential to return to the primitive methods of using cloth bags and strive for ‘No Plastic Zones’ with the motive of achieving ‘Go Green Earth’.

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