The Concepts:

"Few concepts have been subject to such varied interpretations as the concept of Industrial Relations. The term has its own special connotation to each individual concerned with employee - employer relations."1

In fact, the term Industrial Relations refers to every relationship that is established in an industrial enterprise for its business. These can be formal or informal. Formal relations are seen in boss-subordinate relationships in a hierarchical organisation. Similarly, informal relationship exists when a combination of workers (that is Trade Union) influences the management in their various decisions, which are otherwise to be the exclusive privilege or prerogative of the latter. There are occasions when the informal relations had become formal relations over a period of time. For instance, consulting the Trade Union for taking any worker related action, becomes mandatory over a period of time and if a Management signs such formalism, then it ends up in industrial conflicts.

An exhaustive definition on Industrial Relations reads as follows:

"The subject of industrial relations, includes individual relations and joint consultations between employees and work people at the place of work, collective relations between employers and their organisation and Trade Unions and the part played by the State in regulating those relations".2

This definition clarifies that whatever relations that exist between the employers and work people at place of work is part of industrial relations. There are number of activities which entail establishment of relations between people involved in an industry. To list a few:


1) A supervisor controlling the work activities and conduct of a workman, in the process of which he is required to discipline the workman wherever necessary.

2) A workman seeing that he is deprived of any of his entitlements as per his terms of contract of employment or feeling that some injustice done to him, which form part of his grievances.

3) A Manager wanting to make modification in his work process or procedure, which requirement necessitates him to consult the people concerned or to hold joint consultations with workmen representatives.

The Collective relations between employers and their organisations and the Trade Unions implicate the following aspects.

1) Employer holding consultations with his fellow employers, with regard to the various sanctions he extends to working class, more particularly

   a) with those employers in the same region and

   b) with those employers in the same industry.

2) Employers submitting to ethical practices as identified by their collective organisations or associations.

3) Employers or their organisations doing collective bargaining with Trade Unions representing employees, for example on the demands of the latter for improvement in wage and other terms of employment.

4) Employers holding joint consultations with Trade Unions on various issues concerning the amity and good relationship with the employees.

contd....
5) Employers giving way to employees to participate in the management of industry, in the form of
   a) Consultative participation
   b) Administrative participation or
   c) Decision making participation.

The part played by the State in regulating these relations also forms part of Industrial Relations. This can be briefly stated as

1) The state making the regulatory, welfare or society oriented legislations.

2) The state forming statutory, non-statutory or quasi judiciary bodies to look into the problems of industry, its employees and workmen, to update the mechanisms and to introduce changes benefitting the above, such as Tripartite bodies and Labour Conferences.

3) The state instituting authorities constituted under various legislations as said above, principally to protect industrial relations.

With the above observations, we have a fair idea of what is Industrial Relations and what are its main components.

The Frustration of Workmen:

The main threat to industrial relations comes out of the frustrated workman. ‘In a large company, there is more than a sense of frustration; there is a peculiar meaninglessness about its operations to the member of the rank and file. He knows little of the significance of his job in the company as a whole. He does not know who is the real boss. He frequently does not know who is the General Manager and often enough he has never been spoken to by the Works Manager, the Planning Manager, the Chief Welfare Officer, or Personnel Officer and many others are just people with good jobs and short hours. He has no part with them nor do they belong to his group”.

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contd....
To reduce the frustration of workmen in Industries various remedies have been suggested.

1) By arranging working such a way so that the same ethnic and language/internal groups can come together at the workplace.

2) By explaining the purposiveness of the company products and generating a sense of pride for the quality products produced by their joint efforts.

3) By encouraging and advising workers in a friendly and sympathetic manner.

4) By avoiding ill-remarks, abusive language, threats and coercive methods to get work from the workers.

5) By motivating the workers by incentive awards decorations or special assignments.

6) By adopting counselling methods to solve personal difficulties or problems of workers.

7) By facilitating the channel of communication and personal contacts with superiors as occasion may demand.

8) By encouraging group discussion and inviting suggestion for improved methods.

9) By encouraging development of scientific outlook and affording facilities for experiments.

10) By generating a sense of belongingness through sports and other cultural activities and by inviting the families of the workers to participate in such activities and to exhibit their handicrafts and handiworks and to award prizes for good exhibits.

11) Lastly, by giving recognition to meritorious work or constructive suggestions.4

4. Ibid, pp 6 and 7

contd....
**Trade Unionism:**

"A Trade Union is a continuous association of wage earners for the purpose of maintaining or improving the conditions of their working lives."5. The first and over-riding responsibility of all Trade Unions is to the welfare of their own members. That is, their primary commitment: not to a firm, not to an industry, not to the nation. A Union collects its members' contributions and demands their loyalty specifically for the purpose of protecting their interest as they see them, not their alleged 'true' or 'best' interests as defined by others.6

Whilst these definitions tell us what is a trade Union and what is its ideal purpose, we can not ignore the fact that Trade Unions in India and elsewhere have a number of elements in them that tend to obstruct the very purpose they are formed for or to disfigure the very nature they are intended to maintain.

The Constitution of India assures freedom of association, following which fundamental right, Trade Union legislation of the Country permits any seven persons to join together to form an Union and baptise the same legally. Registration as they call it, is as simple as a set of seven people in the trade subscribing their signature to a memorandum of association with a standard by-law appended to it and remittance of a meagre fee.

The growth of trade Unionism entails a history of its own in India as it is the case with other countries.

Starting from the need for establishing basic returns to workmen and insistence on their rights, the movement had progressively developed into a well accepted phenomenon strongly representing the working class with no undiminished courage. The concept of central Trade Union which emerged in 1920 to represent the working class of the Country in international forums like International Labour Organisation (ILO) and to oversee the philosophical ideals of Unions affiliated to them had one such organisation in the initial period and now it is at least nine. The details of Central Trade Union Organisations active at present, their political philosophies and affiliations and their years of formation are given in Table 1 below:

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5. Royal Commission on Trade Unions and Employer Associations, 1965-68, 3623 HMSO 1968. PP 179-186

### TABLE I

Details of Central Trade Unions active at present:

<table>
<thead>
<tr>
<th>Central Union</th>
<th>Year of formation</th>
<th>Political affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All India Trade Union Congress (AITUC)</td>
<td>1920</td>
<td>Communist Party of India</td>
</tr>
<tr>
<td>2. Indian National Trade Union Congress (INTUC)</td>
<td>1948</td>
<td>Indian National Congress (Fuling)</td>
</tr>
<tr>
<td>3. Hind Mazdoor Sabha (HMS)</td>
<td>1948</td>
<td>Praja Socialist Party</td>
</tr>
<tr>
<td>4. Bharatiya Mazdoor Sangh (BMS)</td>
<td>1954</td>
<td>Jan Sangh</td>
</tr>
<tr>
<td>5. Hind Mazdoor Fanchayat (HMP)</td>
<td>1962</td>
<td>Samyuktha Socialist Party</td>
</tr>
<tr>
<td>7. Centre of Indian Trade Unions (CITU)</td>
<td>1970</td>
<td>Communist Party (Marxist)</td>
</tr>
<tr>
<td>8. United Trade Union Congress (UTUC) at Lenin Sarani, Calcutta</td>
<td>1971-72</td>
<td>Radical Parties</td>
</tr>
<tr>
<td>9. UTUC at Central Avenue, Calcutta</td>
<td>1971-72</td>
<td>Radical Parties</td>
</tr>
</tbody>
</table>

Besides these, Confederation of Free Trade Unions (CFTU) was formed in 1952 with the active support of the Christians’ Trade Union and the Labour Progressive Federation was formed by DMK Party in Tamilnadu, during seventies.

Since all the Central Trade Unions are affiliated to one political party of the other, whenever a political party splits into two, there emerges a new trade union.

contd....
There are a number of problems that surround Trade Unions dynamics. To cite a few:

1) Uneven growth: Industrywise and Area-wise
2) Small size of Unions.
3) Financial weakness
4) Inter-Union rivalry
5) Leadership issues
6) Politicalisation of the Unions
7) Problem of recognition of Trade Unions

When we talk of problems although they are concerned with trade union dynamics, they cause enough impact on the employers business and employees welfare and eventually industrial relations.

The growth of Trade Unions has been lopsided and formation of every trade Union has its own adhoc reason. The opportunity given to working class to combine themselves for their common security and to fulfil their common objectives, has been grabbed by those who choose to organise trade unions to propagate their own political philosophies or to settle scores with another group.

This has apparently resulted in growth of unions disproportionate to the need of the industry. One may see the reality, that in India:

a) There is no single Trade Union Organisation concentrating in a particular industry or organisation.

b) Certain Industries are not represented by Central Trade Union organisation at all.

c) There are a number of Trade Unions at Unit level, dispersing the strength of unity and at the same time jeopardizing their very purpose of uniting together.

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The Unions are small enough in membership in many cases; similarly union funding is limited to membership subscriptions and donations during special occasions like bonus disbursement, settlement arrears payment etc. The smallness in size restricts the unions in their very establishment of their entity with the business organisations with which they are concerned or of their recognition as a representative of workmen. The financial weakness, similarly, puts them in a handicap even in respect of their day today administration. This ultimately ruins the organisational integrity of the trade union organisation, in certain cases, since the leaders are put to the necessity of seeking favours with the business organisations. What starts as a help for the common benefit for working class ends up in personal favours for the one who is holding power in the state of affairs of the union, and this leads to ‘accepted’ or ‘much criticised’ corrupt practices. There are leadership which do not even sip a cup of coffee from the hands of the employer as a principle; there are also leadership which live their whole life, including luxurious life, on employer’s money.

Inter Union rivalry is another problem which is acute in India. To cite a few myths that are concerned with this problem:

a) If Union A demands an increase of Re1/- per COL Index point in the DA rate, it necessarily follows Union B should demand Rs.2/-

b) If the Union A agrees with the management on a certain point, the Union B must disagree.

c) If Union A coerces an innocent workman to give his membership, Union B must see that he withdraws and changes his membership to Union B. The poor workman becomes member of both the Unions for which there is no legal or moral constraint.

In short, whatever one Union does, the other Union challenges its bona fide. This causes enough confusion for workmen at large and equally causes enough disturbance in the decision making process of the employers. Some employers seem to take advantage of this situation for their short term gains.

contd....
Leadership issue is another important problem that causes dent in the effectiveness of the Trade Union functions. The first question that arises with is the qualification of the leader with regard to his employment status, commonly referred to as 'insider or outsider'.

The advocates for 'insider' which means, leadership held by an employee of the industry or the Union, plead that:

a) They are well armed with the information about the working of the industry, and the current state of affairs.

b) Their interest in the employee of the industry, or the unit, will be genuine.

c) They will be practical while making decisions, on strike etc. and they will have a balanced view on such occasion keeping the general well being of the workmen in mind.

On the contrary, those who profess 'outsider' leadership, which means a political or non-political person, not an employee in the industry or unit, holding leadership by virtue of his power or social status, claim the following advantages:

a) They can be forthright with the management while dealing with issues of workmen, since they are not economically dependent on the employer's pay or concession.

b) They are professionals in the field and so they may be able to put forth their point with greater sophistication than an employee leader.

c) They enjoy greater respect from workmen as compared to one of their own colleagues.

In either case, the allegation of corruption often emerges whenever an issue is settled and the workmen perceive it to be unfavourable to them.

Another question is on the method of choosing the leader among the contestants.

contd....
One set of philosophy advocates secret ballot to elect the leader and they say it is the proper method in a democratic situation. Whereas, other set believes that the election must be open by show of hands as the members must be open and explicit in expressing their choice of the leader. The latter condemns secret-ballot election since it gives scope for malpractices, corrupt influences like coercion and exploitation of the weakness of workers. The former condemn open ‘show of hand’ election since it puts the member into an embarrassment to ‘veto’ a person who they don’t like and in order to please others around they are forced to ‘vote’ for him. While many of the central trade unions profess secret ballot election of the leader, INTUC advocates open ‘show of hand’ form of election.

Next issue is politicalisation of the issues. As we trace the history of trade unionism in India, we may see that politicalisation has played an important role in influencing trade union’s effectiveness. If not for anything else, this element has been responsible for multiplicity of trade unions.

It was for nominating a delegate to the International Labour Organisation (ILO) formed in 1919, that a need arose for having a national centre of labour in the country. AITUC was formed for this purpose in 1920. Ideological dissension in labour movement began within a few years and there were groups viz communists, nationalists and moderate having conflicts with regard to affiliation of the Central Trade Union Organisation (AITUC) to the leftists like League Against Imperialism and the Pan Pacific Trade Union Secretariat; or to ILO and the International Federation of Trade Unions based at Amsterdam. The party ideology was supreme to the Communists who said the unions only as instruments for furnishing this ideology. For nationalist Independence was the ultimate goal and they expected the Trade Unions to make this their priority as well.

The moderate who were against AITUC joining League Against Imperialism and the Pan Pacific Secretariat, walled out of the federation and formed National Trade Union Federation (NTUF) in 1929. There occurred the first split in this country’s Trade Unionism. Again, within two years when communists themselves found their minority states within AITUC, when the newly formed Red Trade Union Congress was banned by the British Likewise, NTUF dissolved and merged with AITUC in 1940 when the latter agreed to affiliate itself with every International Organisation.

contd....
In 1941, the nationalists in AITUC were opposed to the war efforts, when congress governments which were voted to power four years earlier, resigned in protest against the country’s involvement in an alien war. Because of this a group which was supporting British formed a rival labour movement called Indian Federation of Labour. Immediately after Quit India movement in the same year, the nationalists in AITUC were imprisoned and the Communists outside took over its administration. This resulted in four groups, two in jail and two outside, Congress and another pressure group called Congress Socialists inside and Rayists (named after the prime mover of Indian Federation of Labour) and Communists outside.

Finding AITUC completely under the control of Communists, Congress trade Unionists formed Indian National Trade Union Congress (INTUC) in May 1947. So, it came to stay that AITUC is for Communists and INTUC for Congress. Subsequently, the Congress Socialists group formed Hind Mazdoor Panchayat, in 1948. When Rayist IFL decided to merge with Hind Mazdoor Panchayat, in order to achieve their goal of drawing to their fold, all non-congress and non-Communist Unions, Hind Mazdoor Sabha (HMS) was born in the same year. The revolutionary Socialists and other non-communists Marxists from West Bengal alleged that HMS was dominated by socialists and decided to form United Trade Union Congress (UTUC) in 1949.

“By the fifties the fragmentation of the labour movement on political lines had become a permanent fact.” In 1955 the Jan Sangh formed the Bharalhya Mazdoor Sangh. In 1965 a Splinter group of Socialists formed a second Hind Mazdoor Panchayat. The split in the Communist party gave way to division in AITUC and upon that Centre of India Trade Unions (CITU) was born. Whilst the former was held by Communist Party of India the latter was controlled by Communist Party (Marxists). Later regional federations affiliated to regional political parties such as DMI and ADMK in Tamilnadu and Shiv Sena in Maharashtrahave also emerged.

No wonder, therefore, "Trade Unions multiplicity in India is indirectly traceable to the domination and control of the trade union movement by rival political parties."

We come to the next issue, the problem of recognition of Trade Unions. In the initial stages Employers were very hostile to Trade Union movement. They considered them as enemies or rivals for Industrial harmony, and almost every employer attempted to 'nip it in the bud' by all kinds of measures. Even today, while the concept of Trade Unionism has been a well accepted phenomenon, when a Union sprouts in an industry, the employer looks at it with a sense of contempt or scepticism. Such being the case, recognition of a trade union is a trauma for every trade union and an unpleasant process for every employer, although there are a few employer who accord recognition proper to a Union representing his employer.

There is no Central Legislation in India which makes recognition mandatory. However, the fifteenth Tripartite Indian Labour Conference held in 1958 at Heinital developed certain criteria for recognition of Trade Unions under what it called Code of Discipline.

Under the aforesaid code of discipline, the criteria for recognition are:

1) Where there is more than one Unions, the Union claiming recognition should have been functioning for at least one year before recognition. Where there is only one Union, this condition would not apply.

2) The membership of a Union should cover at least 15% of the workers in the establishment concerned. Membership should be counted only for those who had paid their subscriptions for at least three months during the period of six months immediately providing the reckoning.

3) A Union may claim to be recognised as a representative Union for an Industry in a local area, if it has a membership of at least 25% of the workers of that Industry in that area.


contd....
4) When a Union has been recognised, there should be no change in position for a period of two years.

5) Where there are several Unions in an Industry or establishment the one with the largest membership should be recognised.

6) A representative Union for an Industry in an area should have the right to represent workers in all should have the right to represent workers in all the establishments in the Industry, but if a Union of workers in a particular establishment has a membership of 50% or more of workers, it should have the right to deal with matters of purely local interest such as for instance, the handling of grievances pertaining to its own members. All other workers who are not members of that Union might either operate through the representative union for that Industry or seek redressal directly.

7) Only those Unions which observed the code of Discipline would be entitled to recognition.

8) In case of Trade Unions federations not affiliated to any Central Organisation of Labour, the question should be dealt with separately.

The formal recognition of a Trade Union entitles it to certain privileges from the Management. They are:

a) right of "check off" which means having the subscription of its members deducted from their pay and remitted to the Union.

b) use of notice board on the premises of the undertaking.

c) to appoint its nominees on the works committee and

d) to represent an employee in any proceeding under Industrial Disputes Act.

contd....
The process of recognition involves verification of membership of each union claiming recognition in order to see if they fulfill the criteria for recognition. The National Commission on Labour recommends ascertaining of membership by—

a) either by verification of membership by an independent judicial agency

b) or by holding an election by secret ballot open to all employees

with an idea to insulate the process of recognition against all arbitrariness or nepotism or politics.

State’s role in Industrial relations:
The State intervention in Industrial relations had its beginning during British period itself. Since then, there has been a steady progress in the formation of various policy making bodies and active operative machineries concerned with the Industrial relations in India. They include—

1) Formation of various committees such as Bombay Committee (1920) Bengal Committee (1920) Royal Commission on Labour (1931) to ensure workers participation in management, adequate machinery to settle Industrial disputes etc.

2) Passage of labour legislation like Trade Union Act (1926) Trade Disputes Act (1929), Trade Disputes Amendment Act (1934) Bombay Industrial Disputes Act (1933) Industrial Disputes Act (1947) and various other regulatory and welfare oriented legislations.

3) Formation of tripartite powerful policy making bodies like Indian Labour Conferences Industrial Truce Resolutions and National Commission on Labour.

4) Instituting Wage Boards for major industries like Sugar, Steel, Cement etc.

These statutes and government machineries born out of these statutes automatically take care of the following matters connected with Industrial Relations:

contd....
1) Ensuring that every industrial establishment maintains bipartite bodies, like ‘Works Committee, which meet and resolve local issues, viewing ‘amity and good relations’.

2) Ensuring grievances of workmen are settled by properly constituted grievance settlement machineries and insisting that every matter referred as Dispute is first processed through this machinery.

3) Registering Trade Unions and afterwards ensuring the adherence of their by-laws by properly instituted procedures.

4) Encouraging bipartite settlements, registering and notifying such settlements in the official gazette.

5) Initiating conciliation proceedings between the parties to any Industrial disputes, when referred to them or even when such dispute are apprehended, and promoting settlements.

6) When the conciliatory efforts fail, depending upon the bonafide of the contention of the aggrieved party, causing reference to judicial bodies like Labour Courts and Tribunals to settle the dispute.

7) Prohibiting cessation of work, i.e. strikes or lockouts, viewing the benefit of society at large.

8) Enforcing control measures on management through inspection procedure and instituting prosecution on defaulters.

The State, therefore, intervenes at every stage of an Industrial dispute, affording a good third party role to diffuse conflicting situation.

Finally, it will be worthwhile to go through the basic concepts in Industrial relations as summarised by Richard A Lester, Chairman, Department of Economics and Research Associates, Princeton University U.S.A.

contd....
They are:

1) Labour and management have different goals and place a different priority on social values, such as security and individual incentives. At times their interests and aims conflict. Labour looks at jobs from workers’ viewpoint and experience; management views them from the vantage point of its objectives and its authority to administer business. The "enlightened" employer does not eliminate the need for the workmen’s representations in large firms. Collective bargaining is one means by which the parties can explain to one another their problems and viewpoints so that settlement satisfactory to both groups may be developed.

2) Jobs have significant psychological and sociological dimensions as well as economic aspects. They involve expectations, ethical notions and a set of special customs and mores. Consequently, employment is not like the purchase of potatoes or machine tools. So concepts and conclusions derived from commodity markets cannot be applied without serious qualifications to the field of industrial relations.

3) The market mechanism does not solve, or fails to solve satisfactorily many of the problems of industrial relations. Hence non-market means, such as collective bargaining and labour legislation are needed to work out answers. Hence complete reliance cannot be placed on unilateral management decision.

4) Unions and Corporations are complex organisations with an institutional and political life of their own. It is a mistake to assume that they act on purely economic motives. Much of their behaviour is to be explained by social psychology rather than by principles of economic calculation or maximisation. The leaders of both sometimes complete with one another for influence, prestige and functions.

contd....
5) Persuasion and incentives play a vital role, since the American economic system is based on willing conduct and cooperation. The American political system rests on democratic process. Union activities and collective bargaining provide training, analysis, problem-solving, and majority rule which are helpful for the development of efficiency in government as well as in the economy.

6) Industrial relations involve attempts to arrive at workable compromise and balances between conflicting objectives and values, between incentive and economic security, between discipline and freedom, between bargaining and cooperation. In a dynamic economy and society, there can be no final and correct balance, no scientific formula, no cure-all for problems of industrial relations. Solutions must be tailored to meet the particular situation and consequently will vary with the historical, social, and economic circumstances. So the industrial relations practitioners and those who formulate public policy in this area need insights to be gained from all the social sciences.

Although the above points have been made keeping American situation in mind, they are very much true for every country's situation.

ANNEXURE II

CATASTROPHE THEORY AND ITS APPLICATIONS

In all fields of activity, the scientific approach has been gaining ground in this century. Many activities that were previously handled by verbal analysis and description have proved to be more easily dealt with by mathematical techniques. Mathematical formulation of problems can give certainty in handling complex problems and can enforce a precision in stating the facts of a situation where these would otherwise be lost in emotion and argument.

The Mathematics that deals with changes in functionally related quantities is known as 'the Calculus' and the technique of differentiation is an important part of this area of Mathematics.

We rely on differentiation to arrive at the precise rate of change in any variable. We calculate how the 'infinitesimally small change' in the independent variable alters the value of the 'dependent variable' with an accurately arrived at corresponding change. This part of mathematics has been very helpful to the management scientist in assessing the trends of changes, forecasting developments and solving problems.

1. Being an important concept for our study, the entire chapter is allotted to explain the same. What has been presented here, is vastly relied upon the following papers presented by the celebrated authors in this field:


3. Ibid.

contd....
Although this part of calculus is very valuable to develop models with regard to 'quantitatively definable variables, it has its limitations when it comes to the question of 'qualitatively invariant' matters.

The whole mathematics rests on three types of structures:

1) Order
2) Topological and
3) Algebraic

In a subject like physics, all the three types of structures can be given physical meaning, but in social sciences only the first two types generally have any sociological meaning.

1. Order structure: Comparisons like 'Higher' cost or 'Greater' threat, give sociological meaning to concepts of order.

2. Topological structure: Using any kind of continuous scale to describe proximity gives sociological meaning to topological concepts. Furthermore, one can begin to use concepts of calculus like smoothness.

Leo Tolstoy in his book 'War and Peace' has observed as early as 1869:

"A modern branch of mathematics, having achieved the art of dealing with the infinitely small, can now yield solutions in other more complex problems of motion, which used to appear insoluble. This modern branch of mathematics, unknown to the ancients, when dealing with problems of motion, admits the conception of infinitely small, and so conforms to the chief condition of motion (absolute continuity) and thereby corrects the inevitable error which the human mind cannot avoid when dealing with separate elements of motion instead of examining continuous motion.

In seeking the laws of historical motion just the something happens. The movement of humanity, arising as it does from innumerable arbitrary human wills, is continuous. To understand the laws of this continuous..."
movement is the aim of history . . . . . Only by taking an infinitesimally small unit for observation (the differential of history, that is, the individual tendencies of men) and attaining to the art of integrating them (that is, finding the sum of these infinitesimals) can we hope to arrive at the laws of history .

Tolstoy puts his finger on exactly what catastrophe theory is trying to do.

3. Algebraic Structure: By contrast, algebraic concepts such as addition and multiplication seldom have any sociological meaning. For example, one cannot ‘add’ two senses of threat to arrive at a third one.

First of all, when large number of variables are involved in a problem, that too in non quantitative forms, any amount of differential calculus will not bring about precise results, besides the fact it would involve enormous work. The world of mathematics was therefore looking for a method that would solve the problem of qualitatively defined situations particularly in biological, social, psychological, economic sciences and the like.

The qualitative mathematical language is the natural language for expressing the Laws of the sciences; but until recently it was useless.

Now, with the advent of Catastrophe theory, this language has suddenly been unexpectedly enriched in two vital ways. The language has been transformed from being useless to becoming potentially useful for expressing rigorously an unsuspected array of laws in all the social sciences.

First, catastrophe theory has contributed several new qualitatively invariant terms, such as fold point catastrophic change, cusp catastrophe, divergence, normal factor, splitting factor, bias factor, butterfly catastrophe etc.


5. It was Rene’ Thom, a French mathematician, who presented to the world, the method called Catastrophe theory in the year 1972 which gave answer to this question.

Contd...
Second, these new terms are subtle and have no familiar translation into every day language. Therefore, the new scientific statements that can be made using them have new power to synthesise ideas, to lend new insight and to arrest the mind, perhaps sufficiently, to be called laws.

Catastrophe theory is a new mathematical method for describing the evolution of forms in nature. It is particularly applicable where gradually changing forces produce sudden effects. We often call such effects catastrophes, because our intuition about the underlying continuity of the forces makes the very discontinuity of its effects so unexpected, and that has given rise to the name. The theory depends upon some new and deep theorems in the geometry of many dimensions, which classify the way that discontinuities can occur in terms of a few archetypal forms. These forms are called elementary catastrophes.

The remarkable thing about the results is that, although the proofs are sophisticated, the elementary catastrophes themselves are both surprising and relatively easy to understand, and can be profitably used by scientists who are not expert mathematicians.

Feno Thom presented this concept in his revolutionary book "Structural Stability and Morphogenesis" in 1972, and much of this book concerns embryology. Models in psychology and sociology suggest new insight into complexity of human emotions and human relationships, and offer new designs for experiments.

The theory simply states that the number of configurations of discontinuities that can occur depends not on the number of state variables, which may be very large, but on the control variables which is generally very small. In particular, if the number of control variable is not greater than four, then the catastrophes fall within seven distinct types of elementary catastrophes. More surprising is that in none of these are more than two state variables involved.

The elementary catastrophes are:

1. Fold
2. Cusp
3. Swallowtail
4. Butterfly
5. Hyperbolic
6. Elliptic
7. Parabolic

cont'd....
The first elementary catastrophe is the fold catastrophe. The next is cusp catastrophe which gives us scope to understand the method better. Let us approach our understanding first by considering the simpler 3-dimensional graph shown in Figure 1 below:

*Fig. 1*

Profit as a function of income and cost...

contd....
Here we represent by axes $x, y$ in the horizontal plane $C$, and $x$ by the vertical axis, and since the formula is linear, the graph is a sloping plane in 3 - dimensions. In particular:

- an increase in income causes an increase in profit.
- an increase in costs causes a decrease in profit.
- an increase in both causes no change in profit.

We might summaries this situation by saying

"income and costs are 'conflicting factors' influencing profit"

It is possible to make a formula of this, like

$$x = \alpha - \beta$$

Let us see another situation, which has the basis in psychology, non quantifiable in nature. Experts say, "rage and fear are conflicting factors influencing aggression". Let us see if we can represent this phenomenon into a graph as we did in the case of profit, income and costs function. Well, Konrad Lorenz suggests that we can measure ‘rage and fear’ in a dog by observing its mouth and the ears. He proposes that ‘rage’ is observable by watching how much the mouth is open and ‘fear’ can be measured by seeing how much the ears lay back. So, we can plot rage and fear in two horizontal axes, and the $x$ is representing the resulting behaviour of the dog, running from ‘fight to flight’, through intermediary behaviour such as growling, neutral and avoiding. To plot the graph $x$ as a function of $\alpha$ and we shall look into the following phenomena:

- an increase in rage causes increase in aggression
- an increase in fear causes decrease in aggression
- But, what if the ‘rage and fear increase together’?

The least likely behaviour is for the dog to remain neutral and the most likely behaviour is fight or flight although which of the two he may choose may become unpredictable.

Contd....
Let us look into the likelihoods:

<table>
<thead>
<tr>
<th>Drives</th>
<th>Most likely behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rage only</td>
<td>Fight</td>
</tr>
<tr>
<td>2. Fear only</td>
<td>Flight</td>
</tr>
<tr>
<td>3. Neither</td>
<td>Neutral</td>
</tr>
<tr>
<td>4. Both rage and fear</td>
<td>Fight or Flight</td>
</tr>
</tbody>
</table>

Fig. 2

Likelihood of the aggressive behaviour

contd...
The interesting case is case 4, where the distribution has gone bimodal.

Above each point ( ) of the horizontal plane C, representing given coordinates of rage and fear, is marked the point (or points) representing the most likely behaviour.

What catastrophe theory tells us is that, if the likelihood distributions look like figure 2 above, then the graph will look like the Cusp catastrophe surface M pictured in figure 3 that follows:

Fig. 3

The cusp catastrophe illustrating fear and rage as conflicting factors influencing aggression.
There are some surprising qualities in the above graph.

a. If there is only rage, there will be fighting frame of mind as marked in point (1) in surface M. This corresponds with case 1 in figure 2 which is unimodal.

b. Similarly with cases (2) and (3), 'flight' or 'neutral' frame of mind prevails as indicated in points (2) and (3) in surface M.

c. However, in the interesting case (4), we obtained two points, both marked (4) on the graph above, because the distribution has gone bimodal.

d. Moreover, there is another point, marked (4)* in between these two, indicating the least likely neutral behaviour.

One of the reasons for including the least likely behaviour, as well as the most likely, is that it makes the graph M into a complete smooth surface; this is one of the consequences of the theorem. But it is important to remember when using the cusp catastrophe, that generally the middle sheet (shown shaded) represents least likely behaviour, and only the upper and lower sheets represent most likely behaviour.

The curve on the surface where the upper and the lower sheets fold over in the middle sheet is called the fold curve and the projection of this down into the horizontal plane C is called the bifurcation set. Although the fold curve is a smooth curve, the bifurcation set has a sharp point forming a cusp, and so the name Cusp Catastrophe is given. The cusp lines form the main thresholds for sudden behavioural change, which is explained in the following lines.

The surface gives us some useful information about the dog's aggression mechanism. Corresponding to the drive's variations in the horizontal plane C, his mood and behaviour will follow suit over the surface M above, with the exception of the middle sheet.

contd....
Let us see what happens as his drives follow the paths in C. Path P1 begins with the dog frightened, say, cowering in a corner. If we increase his rage, perhaps by going near him 'invading his territory,' he will remain cowering until the point O1 is reached. At that moment he reaches the fold curve at the edge of the lower sheet, and so the stability of his fleeing frame of mind breaks down, and he will suddenly catastrophically jump up into the upper sheet into a fighting frame of mind (indicated by the double sided arrow). At this point, he may suddenly attack.

Conversely suppose he is in a fighting frame of mind and we cause him to follow path P2 by increasing his fear in some way, then he will nevertheless remain in a fighting frame of mind until the point O2 is reached, when he will suddenly and catastrophically jump down into the lower sheet into a fleeing frame of mind. Consequently, he may suddenly retreat.

'That actually causes these sudden change of mind~~ Why should the mood jump from one surface to another~'

The answer lies in the underlying neurological activity of the brain. The brain may be regarded as a number of large coupled oscillators, each comprising millions of neurons. Non-linear oscillators can possess attractors (stable limit cycles) and that these attractors can typically bifurcate according to the cusp-catastrophe or higher dimensional catastrophes. We may safely conclude that elementary catastrophes to be typical models of brain activity, especially of activity in those parts of the brain such as the limbic system where the organs are more highly inter connected and consequently may tend to oscillate more as whole units. Therefore, we might expect catastrophe theory to be the mathematical language to describe emotion and mood. Indeed, it is striking that moods tend to persist, tend to delay before changing, and then tend to change suddenly, all of which qualities are typical of catastrophe models. We would expect that Fig 3 to be applicable not only to represent aggression of dogs, but to many species under widely varying circumstances.
Divergence:

Let us reexamine paths P3 and P4 in figure 3. Both the paths begin at the same point and end at the same point in the control space C, but induce divergent behaviour. Following path P3 the dog first gets angry and then frightened, but persists in fighting frame of mind. In path P4 the sequences occur in the reverse order. Therefore, although the behaviour in Case(4) is unpredictable, if we happen to know the recent past history then it becomes predictable. Usually, the psychologist's only defence against unpredictability is statistics, but the use of statistics in conjunction with a model of this nature is a much stronger weapon.

Notice the change of behaviour under paths P3 and P4 was quite smooth without any catastrophes involved. In the plane C, the difference between the two paths may be only very marginal; all that matters is that they pass on either side of the cusp point. This phenomenon of a marginal change of path causing a major change in the behaviour, is called divergence and it is very common in biology and social sciences.

In earlier days it was believed that divergent phenomena in the inexact sciences could not be modelled by mathematics; but it is now realised that divergence is a characteristic property of stable systems, which can be both modelled and predicted and the mathematical tool to use is catastrophe theory.

There are five qualitative features in Cusp catastrophe viz.

a) bimodality
b) inaccessibility
c) sudden jumps
d) hysteresis and
e) divergence

contd....
These are illustrated in the figure 4 that follows:

Fig. 3
Five characteristic properties of the cusp catastrophe (the unstable middle sheet has been removed)

contd....
In cases similar to that described here the two control factors (or parameters) in C lie on either side of the cusp such as in Figure 3 in which case we call them conflicting factors. In other cases, one of the control factors is perpendicular to the cusp axis. In those cases, we call "a" as normal factor because if 'b' ≠ 0 then X increases continuously with 'a'. We call 'b' the splitting factor because if 'b' = 0 then M is split into two sheets. The equation of the standard cusp-catastrophe surface M illustrated in Figure 4 is

\[ x^3 = a + b, \]

By differentiating and eliminating \( \lambda \) one obtains the equation of the cusp:

\[ 27a^2 = 4b^3 \]

To get the standard equation in term of conflicting factors put \( a = \lambda - \beta \), \( b = \lambda + \beta \).

Table 1 below gives an assorted list of pairs useful for possible applications.

**TABLE 1**

<table>
<thead>
<tr>
<th>Assorted list of pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phenomenon</strong></td>
</tr>
<tr>
<td>Economic Policy</td>
</tr>
<tr>
<td>Embryology</td>
</tr>
<tr>
<td>More haste, less speed</td>
</tr>
<tr>
<td><strong>Civil unrest</strong></td>
</tr>
<tr>
<td>Delinquency</td>
</tr>
</tbody>
</table>
The Seven Elementary Catastrophes:

We have listed earlier the Seven elementary catastrophes. It is now necessary for us to look into the nature of these models.

We need to understand the classification theorem first which is stated below:

Theorem: Let $C$ be a 2-dimensional control (or parameter) space. Let $X$ be a 1-dimensional behaviour and let $\mathbf{f}$ be a smooth generic function on $X$ parameterised by $C$. Let $M$ be the set of stationary values of $\mathbf{f}$ (given by $\frac{\partial \mathbf{f}}{\partial \mathbf{x}} = \mathbf{0}$, where $\mathbf{x}$ is a coordinate of $X$). Then $M$ is a smooth surface in $C \times X \times X$ and the only singularities of the projection of $M$ onto $C$ are fold curves and cusp catastrophes.

Here a singularity means a point where a vertical line touches $M$. In the rage and fear example, the function $\mathbf{f}$ is the likelihood function on $X$ parameterised by $C$ shown in Figure 2. The stationary values of $\mathbf{f}$ are the maxima and minima representing the most likely and least likely behaviour respectively.

The theorem remains true, word for word, if we increase the dimensions of the behaviour space $X$ from 1 to $\infty$. We can use the theorem implicitly in situations that would be far too complicated to measure.

If we reduce the dimension of $C$ from 2 to 1 then the analogous theorem, 1 dimension lower, says that $M$ is a smooth curve and the only singularities are folds, thus the fold catastrophe appears in sections of cusp catastrophe and the latter is made up of folds together...
with one new singularity at the origin. Similarly, any higher dimensional catastrophe is always made out of lower dimensional ones, together with one new singularity at the origin.

The following Table 2 precisely gives the nature of the elementary catastrophes, which are made within 4 dimensions and each catastrophe is part in the lowest dimension where it first appears, although it also appears in all higher dimensions:

<table>
<thead>
<tr>
<th>Dimension of CI</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Catastrophes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Names</td>
<td>Fold</td>
<td>Cusp</td>
<td>tail</td>
<td>fly</td>
<td>not</td>
</tr>
<tr>
<td></td>
<td>Hyperbo-</td>
<td>paraco</td>
<td>given</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lic-Unbi</td>
<td>lic-um</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lic</td>
<td>lic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ellitic-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unbi</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each of the elementary catastrophes has a standard model and some standard formula for f has been listed in Table 3 below from which standard models can be derived. In each case

\[ a, b, c, d, \text{ are parameters for } C \text{ and } x, y \text{ are variables for } X \]

For cuspsoids M is given by \( df/dx = 0 \) and for umbilics M is given by \( df/dx = df/dy = 0 \). Each catastrophe has its own individual and surprising geometry.
### TABLE 3

<table>
<thead>
<tr>
<th>Cuspoids</th>
<th>Dim x</th>
<th>dim c</th>
<th>Function f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fold</td>
<td>1</td>
<td>1</td>
<td>( \frac{1}{3} x^3 - ax )</td>
</tr>
<tr>
<td>Cusp</td>
<td>1</td>
<td>2</td>
<td>( \frac{1}{4} x^4 - ax - \frac{1}{2}bx^2 )</td>
</tr>
<tr>
<td>Swallowtail</td>
<td>1</td>
<td>3</td>
<td>( \frac{1}{5} x^5 - ax - \frac{1}{2}bx^2 )</td>
</tr>
<tr>
<td>Butterfly</td>
<td>1</td>
<td>4</td>
<td>( \frac{1}{6} x^6 - ax - \frac{1}{2}bx^2 - \frac{1}{3}cx^3 )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Umbibics</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyperbolic</td>
<td>2</td>
<td>3</td>
<td>( x^3 + y^3 + ax + by + cxy )</td>
</tr>
<tr>
<td>Elliptic</td>
<td>2</td>
<td>3</td>
<td>( x^3 - xy^2 + ax + by + c(x^2 + y^2) )</td>
</tr>
<tr>
<td>Parabolic</td>
<td>2</td>
<td>4</td>
<td>( x^2y + y^4 + ax + by + c(x^2 - dy^2) )</td>
</tr>
</tbody>
</table>

**The Butterfly Catastrophe:**

After cusp the most important catastrophe is 'Butterfly Catastrophe' for behavioural sciences and therefore we are required to know about its mechanisms.

What is bimodality to cusp, so trimodality is to butterfly. Any evolution from unimodal to trimodal behaviour determines the unique and much richer 5 dimensional geometry of the butterfly catastrophe. Since trimodality often emerges out of bimodality, it is in a way an extension of cusp. Let us look at an example to understand this concept clearly.

Example 2 Compromise opinion:

Suppose the cusp represents the polarisation over some issue in society; then the butterfly represents the emergence of a compromise opinion. Let us say, the nation is torn between certain decision at the war action; we may safely substitute "threat" and "cost" for "rage" and "fear" in our earlier example on aggression.

contd....
The behaviour axis represents the war policy of the nation, running from strong military action through moderate or weak action to neutrality, withdrawal and surrender. Let us apply the distributions of Figure 2 to this case also:

<table>
<thead>
<tr>
<th>Situation</th>
<th>Most likely policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Threat only</td>
<td>War</td>
</tr>
<tr>
<td>2. Cost only</td>
<td>Surrender</td>
</tr>
<tr>
<td>3. Neither</td>
<td>Neutral</td>
</tr>
<tr>
<td>4. Both threat and cost</td>
<td>War or Surrender</td>
</tr>
</tbody>
</table>

Fig. 5

Likelihood of war policy.

contd....
The two models of case (4) are called 'doves' and 'hawks'. The dynamic in this example is the sensitivity of the Government to its electors, continuously adopting its policy so as to increase its support.

Fig. 6
Cusp Catastrophe illustrating cost and threat as conflicting factors.

contd....
The path P1 on Figure a nation feeling increasingly threatened, but first pursuing a policy of appeasement until it reaches point Q1 when it suddenly declares war. The path P2 represents a nation suffering increasing costs, but first escalating the war, until it reaches point Q2 when it suddenly surrenders.

Paths P3 and P4 represents two nations both experiencing similar escalating threat and cost, but one finishing up in an aggressive mood and the other in an appeasing mood.

Now let us come back to the distributions in Figure 5 above and let us distribute the public support in the Figure 7 below, which can be compared with the former.
If opinion has become polarised between ‘doves’ and ‘hawks’ in a stalemate then it is of importance to understand the mechanism underlying compromise. The same mechanism applies to nearly all social phenomena where compromise plays a part.

We have seen by classification theorem stated earlier, that mathematically the only way a two peak distribution can evolve from a one peak is by means of a cusp catastrophe. The next theorem states that the only way a three peak distribution can evolve is by means of the butterfly catastrophe, which requires four control factors. Indeed in everyday experience, to hammer a compromise solution out of a polarised situation generally does need two more factors, some new ingredient plus time.

We now describe the canonical model (Thom 1972) of the butterfly catastrophe. We give it in a form that illustrates it as a generalisation of the cusp catastrophe. The control space $C + R^4$ of the butterfly has 4 control factors viz.

- a. normal factor
- b. splitting factor
- c. bias factor
- d. butterfly factor

The behaviour space $X = R$ with

$$x = \text{behaviour mode}$$

Let $M$ be the four dimensional manifold in $C \times X = R$ given by the equations:

$$x^5 = a + bx + cx^2 + dx^3$$

Let $G$ be the four dimensional sub manifold of $M$ given by

$$5a^4 + 4b + 2ac + 3d = 0$$

Then $G$ is the desired graph of butterfly catastrophe. Since we cannot draw a five dimensional picture, we may draw the qualitative properties of $G$, first in various two dimensional sections of control space $C$. Each section so drawn in figure B below, is an $(a, b)$ plane drawn for $(c, d) = \text{constant}$ and illustrates what the bifurcation set looks like in that section.

contd....
Notice the effect of the bias factor, $c$. When $d < 0$, the effect of the bias is to bias the position of the cusp, as shown in the top three pictures. When the bias is positive, the cusp is biased in the positive direction of the normal factor, and vice versa.

Now consider the effect of butterfly factor, $d$. When this comes into play, $d > 0$ the effect is to bifurcate the cusp into three cusps as shown in the bottom three pictures. The number in each region indicates the number of peaks in the corresponding probability distribution and hence the number of sheets of $S$ over that region; as the control point crosses the bifurcation set, the number changes because the distribution bifurcates.

Fig. 8

Sections of butterfly catastrophe cont....
If we turn the picture upside down, it looks a bit like a butterfly, which explains the name. The V shape in this picture represents the emerging pocket of compromise opinion. There are in fact two Vs, an outer V with vertex at the cusp at the origin and an inner V with vertex at the intersection point above the origin. The compromise maximum exists at all points inside the outer V and is the unique maximum at all points inside the inner V. In between the two Vs, the compromise is competing with the dove and hawk maxima, and inside the little diamond shape all three maxima are competing.

Let us now see the control behaviour graph for the above distributions in Figure 9.

Fig. 9

Section of butterfly catastrophe contd....
In the above example,

- threat is a normal factor
- cost is a splitting factor
- Invulnerability is a bias factor
- Time is a butterfly factor

We started earlier threat, as a normal factor induces the policy on military action to be aggressive whilst cost, as splitting factor reduces the same. Now, vulnerability as a bias factor and Time as the butterfly factor we see modified situations as represented in Figure 8.

Conclusion:

This theory is so very helpful for us to modulate our hypotheses. Whilst we have identified four control factors which are important to industrial relations situation, we have hypothesised these factors as follows: Hypotheses:

- Trust is a normal factor
- Management neglect is splitting factor
- Trade Union Dynamics is a bias factor
- Third Party Intervention is a butterfly factor

Influencing industrial relations dynamics in an organisation

We shall in the following chapters see how these hypotheses are tested and proved.
QUESTIONNAIRE

DEVELOPMENT OF OPERATIONAL MODELS IN INDUSTRIAL RELATIONS DYNAMICS THROUGH APPLICATION OF CATESTROPHE THEORY

STUDY UNDERTAKEN FOR A DOCTORAL THESIS

TO BE SUBMITTED TO
BHARATHIDASAN UNIVERSITY
TIRUCHIRAPPALLI - 620 024

Researcher:
V. Sreenivasan.
PART - A

DESCRIPTION OF THE UNIT

NAME OF THE UNIT: [ ]
YEAR ESTABLISHED: [ ]

0.1 SIZE
No. of workmen employed
- below 50 [ ]
- 51 - 100 [ ]
- 101 - 200 [ ]
- 201 - 500 [ ]
- 501 - 1000 [ ]
- 1001 and above [ ]

0.2 TYPE
- manufacturing [ ]
- manufacturing and trading [ ]
- trading only [ ]

0.3 MANAGEMENT
- corporate multinational/transnational [ ]
- corporate Indian [ ]
- partnership [ ]
- sole proprietorship [ ]
- co-operative [ ]
- government/quasi-government [ ]

0.4 HIERARCHY
- branch [ ]
- head office [ ]
- combined [ ]

0.5 LOCATION
- urban [ ]
- rural [ ]

0.6 POPULATION
OF THE AREA
- below 10,000 [ ]
- above 10,000 but below 1,00,000 [ ]
- above 1,00,000 but below 10,00,000 [ ]
- above 10,00,000 [ ]

0.7 TRADE UNIONS
Number
- single [ ]
- two [ ]
- more than two [ ]

Recognition
- not given [ ]
- recognition given for one union only [ ]
- recognition given for more than one union [ ]

Affiliation
- no affiliations [ ]
- politically affiliated [ ]
- affiliated to central trade union organisation [ ]

Leadership
- leadership from within [ ]
- leadership from outside [ ]
0.8 SOCIAL GROUPINGS

| Religious Groups | equally distributed | ( ) former religion of large proportion | two religions equal, |

0.9 INDUSTRIAL RELATIONS HISTORY

| awards received | strikes occurred | lockouts | other forms of agitation |

PART-B

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPLOYEE</td>
<td>Management category</td>
</tr>
<tr>
<td>NONEMPLOYEE</td>
<td>Trade union official</td>
</tr>
</tbody>
</table>

NOTE: IF EMPLOYEE, RESPOND TO THE FOLLOWING QUESTIONS.

0.11 AGE

| below 30 | 30 and above but below 40 | 40 and above but below 50 | 50 and above |

0.12 SERVICE

| below 5 years | 5 and above but below 10 years | 10 and above but below 20 years | 20 and above |

0.13 PAY

| below Rs.2000 p.m | Rs.2000 and above below Rs.3000 | Rs.3000 and above below Rs.4000 | Rs.4000 and above |

0.14 SEX

| male | female |

0.15 MARITAL STATUS

| unmarried | married | married with children |

0.16 EDUCATION

| illiterate | school level | college level | post graduation |

0.17 INVOLVEMENT IN TRADE UNION

| Office bearer | Member | Nonmember |

### EXPLANATION FOR TERMS USED IN PART-C

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. TRUST</td>
<td>The implicit faith that the employees have in management, a favourable disposition to them, the positive appreciation of whatever they do, a sense of belonging and great admiration to their style of working.</td>
</tr>
<tr>
<td>B. MANAGEMENT NEGLECT</td>
<td>The resultant perception of workmen on various management actions, giving direct and indirect message about their attitude to workforce and the working of the organisation leading to dissatisfaction and frustration among workmen.</td>
</tr>
<tr>
<td>C. TRADE UNION DYNAMICS</td>
<td>The structural and constitutional aspects of the representative body of the workmen including its leadership, inter-intra membership co-operation or conflicts and the like.</td>
</tr>
<tr>
<td>D. THIRD PARTY INTERVENTION</td>
<td>Taking responsibility of the situation in order to bring the same under control to restore normalcy wherever appropriate, includes conciliation, arbitration and adjudication proceedings initiated through state machinery.</td>
</tr>
<tr>
<td>E. AMITY</td>
<td>Sense of co-operation, prevalence or restoration of normalcy.</td>
</tr>
<tr>
<td>F. UNREST</td>
<td>Disturbance to normalcy, agitation expressed in the form of gross insubordination, demonstrations, restriction of output, violence, strikes, etc.</td>
</tr>
<tr>
<td>G. INDUSTRIAL RELATIONS</td>
<td>Employer-employee harmony, depicting a peaceful atmosphere resulting in normal working without any deviation from the normal discipline.</td>
</tr>
</tbody>
</table>
### 1. Main Factors Affecting Industrial Relations:

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Trust increases the scope for harmonious industrial relations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Management defect reduces the scope for harmonious industrial relations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Trade union dynamics play a vital role in influencing the effectiveness of trust as a factor for harmonious industrial relations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Third party intervention is a factor coming into picture when the industrial relations situation is disturbed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2. Trust is a Factor Influenced by

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Clear management policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Professional management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Concern for people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Sharing gains of productivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Career growth programme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>Employment security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.7</td>
<td>Outstanding achievements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>Socially responsive attitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>Quality consciousness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.10</td>
<td>Well regulated wage structure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Any Others**

2.11
2.12
2.13
2.14
2.15
3. MANAGEMENT NEGLECT IS ATTRIBUTABLE TO:

<table>
<thead>
<tr>
<th></th>
<th>AGREE</th>
<th>DISAGREE</th>
<th>UNSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Delay in making decisions</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.2</td>
<td>Ineffective grievance settlement procedure</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.3</td>
<td>Disparity of treatment in disciplinary proceedings</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.4</td>
<td>Favouritism in employee recognitions</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.5</td>
<td>Failure to take disciplinary action</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.6</td>
<td>Blind to corrupt practices in employee matters</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.7</td>
<td>Not maintaining a flow of related information to workmen</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.8</td>
<td>Not providing proper working conditions</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.9</td>
<td>Not extending appropriate designations/Nonconciuries in accordance with the settlement/award</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>3.10</td>
<td>Wide disparity in pay and perquisite between management staff and workmen</td>
<td>[]</td>
<td>[]</td>
</tr>
</tbody>
</table>

ANY OTHERS

3.11
3.12
3.13
3.14
3.15
### Trade Union Dynamics is Favourable When:

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Only one union represents the workmen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Leadership in the union is effective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>Leadership is free from corrupt practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>Leadership is able to get things done with the management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>Leadership enjoys the trust of workmen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.6</td>
<td>Workmen perceive union friendly with the management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.7</td>
<td>The union has political backing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.8</td>
<td>The union is affiliated to a central body</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9</td>
<td>The office bearers are united and unified in approach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.10</td>
<td>The union is conforming to its constitutional requirements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Any Others**

4.11

4.12

4.13

4.14

4.15
### 5. THIRD PARTY INTERVENTION:

<table>
<thead>
<tr>
<th></th>
<th>AGREE</th>
<th>DISAGREE</th>
<th>UNSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Is inevitable when a crisis situation arises</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.2</td>
<td>Is normally through machineries constituted under Industrial Disputes Act</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.3</td>
<td>Is mostly initiated through political power influenced by workers</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.4</td>
<td>Mostly brings out compromise situation</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.5</td>
<td>Is mostly initiated by the management</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.6</td>
<td>Is mostly helpful to settle the issue</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.7</td>
<td>Mostly sets the direction to normalcy in any issue</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.8</td>
<td>Is effective if through arbitration</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.9</td>
<td>Is effective when the highest level of conciliatory machinery is involved</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>5.10</td>
<td>Is normally encouraged by the unions</td>
<td>[]</td>
<td>[]</td>
</tr>
</tbody>
</table>

**ANY OTHERS**

5.11
5.12
5.13
5.14
5.15
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Trust</th>
<th>Management Neglect</th>
<th>Trade Union Dynamics</th>
<th>Third Party Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.01</td>
<td>Low</td>
<td>Low</td>
<td>Unfavourable</td>
<td>Uninvited</td>
</tr>
<tr>
<td>6.02</td>
<td>Low</td>
<td>Low</td>
<td>Unfavourable</td>
<td>Ineffective</td>
</tr>
<tr>
<td>6.03</td>
<td>Low</td>
<td>Low</td>
<td>Neutral</td>
<td>Uninvited</td>
</tr>
<tr>
<td>6.04</td>
<td>Low</td>
<td>Low</td>
<td>Neutral</td>
<td>Ineffective</td>
</tr>
<tr>
<td>6.05</td>
<td>Low</td>
<td>Low</td>
<td>Neutral</td>
<td>Effective</td>
</tr>
<tr>
<td>6.06</td>
<td>Low</td>
<td>Low</td>
<td>Neutral</td>
<td>Effective</td>
</tr>
<tr>
<td>6.07</td>
<td>Low</td>
<td>Low</td>
<td>Favourable</td>
<td>Uninvited</td>
</tr>
<tr>
<td>6.08</td>
<td>Low</td>
<td>Low</td>
<td>Favourable</td>
<td>Ineffective</td>
</tr>
<tr>
<td>6.09</td>
<td>Low</td>
<td>Moderate</td>
<td>Favourable</td>
<td>Effective</td>
</tr>
<tr>
<td>6.10</td>
<td>Low</td>
<td>Moderate</td>
<td>Unfavourable</td>
<td>Uninvited</td>
</tr>
</tbody>
</table>
6.11. The trust is low
Management neglect is moderate
Trade union dynamics is unfavourable
Third party intervention is ineffective

6.12. The trust is low
Management neglect is moderate
Trade union dynamics is unfavourable
Third party intervention is effective

6.13. The trust is low
Management neglect is moderate
Trade union dynamics is neutral
Third party intervention is uninvited

6.14. The trust is low
Management neglect is moderate
Trade union dynamics is neutral
Third party intervention is ineffective

6.15. The trust is low
Management neglect is moderate
Trade union dynamics is neutral
Third party intervention is effective

6.16. The trust is low
Management neglect is moderate
Trade union dynamics is favourable
Third party intervention is uninvited

6.17. The trust is low
Management neglect is moderate
Trade union dynamics is favourable
Third party intervention is ineffective

6.18. The trust is low
Management neglect is moderate
Trade union dynamics is favourable
Third party intervention is effective

6.19. The trust is low
Management neglect is moderate
Trade union dynamics is favourable
Third party intervention is effective

6.20. The trust is low
Management neglect is high
Trade union dynamics is unfavourable
Third party intervention is ineffective
6.21. The trust is low  
Management neglect is high  
Trade union dynamics is unfavourable  
Third party intervention is effective [ ] [ ] [ ]

6.22. The trust is low  
Management neglect is high  
Trade union dynamics is neutral  
Third party intervention is uninvited [ ] [ ] [ ]

6.23. The trust is low  
Management neglect is high  
Trade union dynamics is neutral  
Third party intervention is ineffective [ ] [ ] [ ]

6.24. The trust is low  
Management neglect is high  
Trade union dynamics is neutral  
Third party intervention is effective [ ] [ ] [ ]

6.25. The trust is low  
Management neglect is high  
Trade union dynamics is favourable  
Third party intervention is uninvited [ ] [ ] [ ]

6.26. The trust is low  
Management neglect is high  
Trade union dynamics is favourable  
Third party intervention is ineffective [ ] [ ] [ ]

6.27. The trust is low  
Management neglect is high  
Trade union dynamics is favourable  
Third party intervention is effective [ ] [ ] [ ]

6.28. The trust is moderate  
Management neglect is low  
Trade union dynamics is unfavourable  
Third party intervention is uninvited [ ] [ ] [ ]

6.29. The trust is moderate  
Management neglect is low  
Trade union dynamics is unfavourable  
Third party intervention is ineffective [ ] [ ] [ ]

6.30. The trust is moderate  
Management neglect is low  
Trade union dynamics is unfavourable  
Third party intervention is effective [ ] [ ] [ ]
6.31. The trust is moderate
Management neglect is low
Trade union dynamics is neutral
Third party intervention is uninvited

6.32. The trust is moderate
Management neglect is low
Trade union dynamics is neutral
Third party intervention is ineffective

6.33. The trust is moderate
Management neglect is low
Trade union dynamics is neutral
Third party intervention is effective

6.34. The trust is moderate
Management neglect is low
Trade union dynamics is favourable
Third party intervention is uninvited

6.35. The trust is moderate
Management neglect is low
Trade union dynamics is favourable
Third party intervention is ineffective

6.36. The trust is moderate
Management neglect is low
Trade union dynamics is favourable
Third party intervention is effective

6.37. The trust is moderate
Management neglect is moderate
Trade union dynamics is unfavourable
Third party intervention is uninvited

6.38. The trust is moderate
Management neglect is moderate
Trade union dynamics is unfavourable
Third party intervention is ineffective

6.39. The trust is moderate
Management neglect is moderate
Trade union dynamics is unfavourable
Third party intervention is effective

6.40. The trust is moderate
Management neglect is moderate
Trade union dynamics is neutral
Third party intervention is uninvited
5.41. The trust is moderate
 Management neglect is moderate
 Trade union dynamics is neutral
 Third party intervention is ineffective

5.42. The trust is moderate
 Management neglect is moderate
 Trade union dynamics is neutral
 Third party intervention is effective

5.43. The trust is moderate
 Management neglect is moderate
 Trade union dynamics is favourable
 Third party intervention is uninvited

5.44. The trust is moderate
 Management neglect is moderate
 Trade union dynamics is favourable
 Third party intervention is ineffective

5.45. The trust is moderate
 Management neglect is moderate
 Trade union dynamics is favourable
 Third party intervention is effective

5.46. The trust is moderate
 Management neglect is high
 Trade union dynamics is unfavourable
 Third party intervention is uninvited

5.47. The trust is moderate
 Management neglect is high
 Trade union dynamics is unfavourable
 Third party intervention is ineffective

5.48. The trust is moderate
 Management neglect is high
 Trade union dynamics is unfavourable
 Third party intervention is effective

5.49. The trust is moderate
 Management neglect is high
 Trade union dynamics is neutral
 Third party intervention is uninvited

5.50. The trust is moderate
 Management neglect is high
 Trade union dynamics is neutral
 Third party intervention is ineffective
WHEN THE CONDITIONS ARE... THE RESULTANT INDUSTRIAL RELATIONS WILL BE UNREST AMITY EITHER

1. The trust is moderate
   Management neglect is high
   Trade union dynamics is neutral
   Third party intervention is effective [ ] [ ] [ ]

2. The trust is moderate
   Management neglect is high
   Trade union dynamics is favourable
   Third party intervention is uninvited [ ] [ ] [ ]

3. The trust is moderate
   Management neglect is high
   Trade union dynamics is favourable
   Third party intervention is ineffective [ ] [ ] [ ]

4. The trust is moderate
   Management neglect is high
   Trade union dynamics is favourable
   Third party intervention is effective [ ] [ ] [ ]

5. The trust is high
   Management neglect is low
   Trade union dynamics is unfavourable
   Third party intervention is uninvited [ ] [ ] [ ]

6. The trust is high
   Management neglect is low
   Trade union dynamics is unfavourable
   Third party intervention is ineffective [ ] [ ] [ ]

7. The trust is high
   Management neglect is low
   Trade union dynamics is unfavourable
   Third party intervention is effective [ ] [ ] [ ]

8. The trust is high
   Management neglect is low
   Trade union dynamics is neutral
   Third party intervention is uninvited [ ] [ ] [ ]

9. The trust is high
   Management neglect is low
   Trade union dynamics is neutral
   Third party intervention is ineffective [ ] [ ] [ ]

10. The trust is high
    Management neglect is low
    Trade union dynamics is neutral
    Third party intervention is effective [ ] [ ] [ ]
| 6.61. The trust is high | Management neglect is low | Trade union dynamics is favourable | Third party intervention is uninvited |
| 6.62. The trust is high | Management neglect is low | Trade union dynamics is favourable | Third party intervention is ineffective |
| 6.63. The trust is high | Management neglect is low | Trade union dynamics is favourable | Third party intervention is effective |
| 6.64. The trust is high | Management neglect is moderate | Trade union dynamics is unfavourable | Third party intervention is uninvited |
| 6.65. The trust is high | Management neglect is moderate | Trade union dynamics is unfavourable | Third party intervention is ineffective |
| 6.66. The trust is high | Management neglect is moderate | Trade union dynamics is unfavourable | Third party intervention is effective |
| 6.67. The trust is high | Management neglect is moderate | Trade union dynamics is neutral | Third party intervention is uninvited |
| 6.68. The trust is high | Management neglect is moderate | Trade union dynamics is neutral | Third party intervention is ineffective |
| 6.69. The trust is high | Management neglect is moderate | Trade union dynamics is neutral | Third party intervention is effective |
| 6.70. The trust is high | Management neglect is moderate | Trade union dynamics is favourable | Third party intervention is uninvited |
6.71. The trust is high
Management neglect is moderate
Trade union dynamics is favourable
Third party intervention is ineffective

6.72. The trust is high
Management neglect is moderate
Trade union dynamics is favourable
Third party intervention is effective

6.73. The trust is high
Management neglect is high
Trade union dynamics is unfavourable
Third party intervention is uninvited

6.74. The trust is high
Management neglect is high
Trade union dynamics is unfavourable
Third party intervention is ineffective

6.75. The trust is high
Management neglect is high
Trade union dynamics is unfavourable
Third party intervention is effective

6.76. The trust is high
Management neglect is high
Trade union dynamics is neutral
Third party intervention is ineffective

6.77. The trust is high
Management neglect is high
Trade union dynamics is neutral
Third party intervention is ineffective

6.78. The trust is high
Management neglect is high
Trade union dynamics is neutral
Third party intervention is effective

6.79. The trust is high
Management neglect is high
Trade union dynamics is favourable
Third party intervention is uninvited

6.80. The trust is high
Management neglect is high
Trade union dynamics is favourable
Third party intervention is ineffective

6.81. The trust is high
Management neglect is high
Trade union dynamics is favourable
Third party intervention is effective

Thank you very much for your kind co-operation
BIBLIOGRAPHY


contd..
11. Kevin Hawkins : Case Studies in Industrial Relations
   ogan Page Ltd., London 1982

12. Lal Das D.P. : Industrial Relations in India
    S. Chand & Company Ltd.
    New Delhi 1983

13. Malhotra O.P. : Law of Industrial Disputes
    N.M. Tripathi Pvt Ltd.
    Bombay

14. Mamoria C.B. Satish Manoria
    : Labour Welfare, Social Security
    and Industrial Peace in India
    Pitab Mahal Agencies,
    Allahabad 1983

15. Narayanan Manickavachagom
    Pillai : Ancillary Mathematics
    S. Viswanathan (Printers & Publishers) Pvt Ltd.
    1979

16. Peter C Jackson : Corporate Communication for Managers

17. Pramoo Verma : Management of Industrial Relations-Readings & Cases
    Oxford & IBH Publishing Co
    New Delhi 1981

18. Peter F Drucker : Managing for Results
    Economic Task and Pital-\taking decisions
    Allied Publishers Pvt Ltd.
    New Delhi 1964

19. Rameswami E.A.
    Uma Rameswami : Industry and Labour
    -an Introduction
    Oxford University Press
    Delhi 1981

20. Reddy Y R T : Strategic Approacsto Human Resources Management
    Wiley Easter Ltd.
    New Delhi 1990

21. SureshCSrivastava: Industrial Disputes and Labour Management Relations in India
    Deep and Deep Publications
    New Delhi 1984

contd.....
22. Stafford L.W. : Business Mathematics
   The ELBS and Mac Donald & Evans Ltd
   Plymouth 1979

23. Thom R. : Structural Stability and Morphogenesis Beyamin,
   New York, French 1972; English Translation by
   D H Fowler 1975

24. Udai Pareel : Organisational Behaviour Processes
   Rawat Publicatins, Jaipur 1988

25. Vaidyanathan S : The Industrial Disputes Act 1947,
   Madras Book Agency, Madras 1982

26. William T Mchod : Collins Concise Dictionary of English Language
   Rupa & Co., New Delhi 1967

27. Zeema E.C. : Catastrophe Theory: Selected Papers 1972-77
   Addison-Wesley Publishing Company Inc.
   Massachusetts 1980
ANNEXURE 5

ROLE OF THE OFFICERS OF THE LABOUR DEPARTMENT

The maintenance of industrial peace and harmony by the timely intervention and settlement of industrial disputes between the management of industrial establishments and their workers is the main function of the Labour Department Officials. In addition they are also responsible for the enforcement of the various labour legislations which are designed to confer security of service, ensure better service conditions and welfare and promote social security measures to the workers. The following note will explain the respective role of the various officers of the Department.

COMMISSIONER OF LABOUR:

He is the head of the Labour Department which consists of Labour and Weights and Measures Sections.

STATUTORY FUNCTIONS:

1. He is the Chief Conciliation Officer under the Industrial Disputes Act, 1947 with State-wide jurisdiction.

2. Commissioner for Workmen’s Compensation for the State of Tamilnadu under the Workmen’s Compensation Act, 1923. (The real work has been delegated to Deputy Commissioner of Labour).

3. Authority to decide the cases of the applicability of the Tamil Nadu Shops and Establishments Act, 1947 under Section 51 of the Act.

4. Authority to decide the question of applicability of the Tamil Nadu Catering Establishments Act, 1958 to an employee or to a Catering Establishment under Sub-section 2 of Section 27 of the Act.

5. Authority to specify hours of work and conditions of service of the workmen of the Contractors as required under Rule 25(2) (b) of the Tamil Nadu Contract Labor Rules 1975.

contd....
6. Specified authority to grant or refuse to grant permission for closing down an Industrial Undertaking having 100 or more workmen under Section 25(0) of the Industrial Disputes Act, 1947.

ROLE OF THE COMMISSIONER OF LABOUR IN THE TRIPARTITE FORUMS:

The Commissioner of Labour in his official capacity is associated with various statutory and non-statutory bodies which are set up by the Government for advising them in deciding the various matters concerning Labour and the implementation of various Labour Legislations.

STATUTORY BODIES:

1. Chairman of the Minimum Wages (State) Advisory Board.
2. Member, Plantation Labour Housing advisory Board.
3. Member, State Advisory Contract Labour Board.
4. Member, Tamil Nadu Labour Welfare Board
5. Member, Regional Committee under the Employees' Provident Fund Scheme.
6. Member, State Council for Training on Vocational Trades.
7. State Apprenticeship Council.

NON-STATUTORY:

1. Chairman, Plantations Labour Advisory Committee.
2. Chairman, Hospital Advisory Committee, Madras.
3. Chairman, Regional Board of Workers Education, Madras.

contd...
4. Member-Secretary, State Labour Advisory Board.

5. Convenor-High Level standing Committee for Employers/Employees to advise Government on problems relating to labour unrest in essential service.

6. Member, Committee on Territorial Army for which the Chief Minister of State is the Chairman.

7. Member, State Legal Aid Committee ('Madras Branch')

8. Member, State Advisory Board of Child Labour

9. Member, Consultative Panel for Industrial Workers Programme ('All India Radio').

10. Member, Committee on Small Scale Industries.


He is also attending the meeting of the National Tripartite Bodies like Standing Labour Committee, Indian Labour Conference and State Labour Ministers Conference convened by the Government of India from time to time as an advisory to the State Labour Minister who is the Member of these bodies.

ADMINISTRATION:

The Commissioner of Labour is competent to appoint officers upto the level of Deputy Inspectors of Labour and Transfer and Posting of officers upto the level of Assistant Commissioner of Labour. He is also competent to impose punishments upto dismissal for all officers upto the level of Deputy Inspectors of Labour and grant minor punishment like stoppage of increment to officers upto the grade of Assistant Commissioner of Labour.

cont...
HEADQUARTERS OFFICERS

1(a) JOINT COMMISSIONER OF LABOUR (ADMINISTRATION)

He is to assist the Commissioner of Labour in all administrative matter of the Department. He is the Officer competent to appoint staff upto the level of Assistants and Transfer Assistant Inspectors of Labour. All conciliation failure reports on 2A cases (except Government Sector) in respect of districts of Madras, Chengalpattu, North Arcot, Dharmapuri, Salem, Erode, Nilgiris, and Coimbatore are dealt by him. Besides this, he is also having the following statutory and non-statutory functions.

STATUTORY FUNCTIONS:

1. He is the Conciliation Officer under the Industrial Disputes Act, 1947 with State-wide jurisdiction.

He is also associated with the following Tripartite Bodies which are set up to advise the Government on the implementation of various Schemes/Labour Enactments.

STATUTORY BODIES:

1. Secretary,
   Plantation Labour Housing Advisory Board.

contd...
1(b) JOINT COMMISSIONER OF LABOUR (CONCILIATION)

This post has been specially created recently with the intention of relieving the Commissioner of Labour from the burden of dealing with Industrial Disputes and other matters relating to amendments to various labour laws, etc.

This officer assists the Commissioner of Labour in the settlement of major Industrial Disputes as a Conciliation Officer with State-wide jurisdiction. He is dealing with all conciliation failure reports in respect of 2A cases (except Government Sector) in the District of South Arcot, Thanjavur, Trichy, Pudukottai, Madurai, Ramnad, Tirunelveli and Tanyalumari.

He is having the following statutory functions.

1. He is the Conciliation Officer under the Industrial Disputes Act 1947 with State-wide jurisdiction.
2. Inspector under the Payment of Bonus Act, 1965.

Besides this he is also associated with the following Statutory and Non-statutory Tripartite Committees.

STATUTORY BODIES:

1. Member-Secretary Equal Remuneration Advisory Committee,

NON-STATUTORY BODIES:

2. Chairman State Evaluation & Implementation Committee

contd...
II. SPECIAL DEPUTY COMMISSIONER OF LABOUR:

This Officer has to assist the Commissioner of Labour in the settlement of Major Industrial Disputes as a Conciliation Officer with State-wide jurisdiction. In addition to this, he is assigned with the following duties.

1. He is an Inspector under Payment of Bonus Act.

2. Secretary, State Evaluation & Implementation Committee.

3. Secretary, State Arbitration Promotion Board for which a Retired High Court Judge is the Chairman.

4. Secretary, for the Committee to select winners under the Good Industrial Relations Award. This Committee is also functioning under the Chairmanship of a Retired High Court Judge.

III. DEPUTY COMMISSIONER OF LABOUR (INSPECTIONS)

This Officer is entrusted with the Administration of the Weight and Measures Legislation such as the Standards of Weights & Measures Act, 1976 and the Standards of Weights & Measures (Enforcement) Act 1985 in his capacity as the Controller of Legal Metrology, Tamil Nadu. He is also Chief Inspector of Boedi Establishments under the Boedi & Cigar Workers (Conditions of Employment) Act 1966 and the Chief Inspector under the Tamil Nadu Handloom Workers (Conditions of Employment and Miscellaneous Provisions) Act, 1981. In his work he is assisted by 21 Inspectors of Labour, 65 Deputy Inspectors of Labour, 206 Assistant Inspectors of Labour. Besides these Inspectors, there are 87 Stamping Inspectors to assist him in the verification and re-verification of stamping of Weights and Measures under the Standards of Weights and Measures (Enforcement) Act 1985.

contd....
He is also a Conciliation officer with State-wide jurisdiction.

He is a member of the Advisory Committee under the Iduedi Workers Welfare Fund Act, 1976 for which the Minister for Labour is the Chairman.

IV DEPUTY COMMISSIONER OF LABOUR (MINIMUM WAGES):

This post has been specially created to assist the Commissioner of Labour in the administration of Minimum Wages Act, 1948 with a particular reference to fixation/revision of minimum wages for various scheduled employments. For this purpose he is also appointed as the Chairman of the various Minimum Wages Committee constituted by the Government for advising them in the matter of fixation/revision of minimum rates of wage for various scheduled employments. He is also the Secretary of the Minimum Wages (State) Advisory Board. In addition, he is also notified as:

Conciliation Officer for Whole State of Tamil Nadu under the Industrial Disputes Act, 1947.

Further Deputy Commissioner of Labour (Minimum Wages) is the Chief Inspector of Motor Transport undertakings under the Motor Transport Workers Act 1961.

V DEPUTY COMMISSIONER OF LABOUR (APPEAL)

This post has been specially created with the intention of relieving the Regional Deputy Commissioners of Labour I and II, Madras from hearing of cases under Section 41(2) of the Tamil Nadu Shops and Establishment Act, 1947 AND Payment of Gratuity Act, 1972. This Officer is notified as the Authority to hear and decide appeals under Section 41(2) of the Tamil Nadu Shops and Establishments Act 1947 and Payment of Gratuity Act 1972 and he is assigned with jurisdiction over Madras and Chengalpattu Districts.

contd....
V(a) LAW OFFICER (DEPUTY COMMISSIONER OF LABOUR)

A number of Writ Petitions are being filed before the High Court of Judicature, Madras and in certain cases even before the Supreme Court of India against the orders of the departmental officers in their capacity as quasi-judicial authorities by the affected parties, either; the managements or the trade unions. In defending these cases before the Courts, the Government Pleader has to be given proper instructions and assistance both on financial and legal aspects; before filing counter affidavits on behalf of the Government or the concerned officials. In certain cases, even the Government Orders (Notifications) passed for the benefit of workmen under the various Labour Laws are being questioned and in certain cases a particular legislation or a provision of a Section in the Act is challenged before the High Court of Madras and in those cases it becomes imperative to defend the interest of Government or officials of the State. Though, the Government Pleader appears before the High Court on behalf of the Respondents i.e. officials of the Department, unless, he is given proper guidance before the conduct of the cases, it would not be possible for us to effectively defend and get favourable verdict from the High Court. In all these cases, the Law Officer should concentrate in attending to these items of work, relieving the senior officials of the Department in preparation of counter affidavits for defending the writ petitions effectively. He should send reports to government on matters pertaining to the Legal aspect through the concerned Deputy Commissioners of Labour/Joint Commissioners of Labour and Commissioner of Labour.

The Law Officer should also assist the Commissioner of Labour in sending draft notifications under various Labour Laws; and also in formulating Rules and amendments under Labour Legislations. He should also assist in drafting new piece of labour legislations as and when proposed to the Government.

The Law Officer of this office should assist the Senior Standing Counsel in respect of applications filed before the Tamil Nadu Administrative Tribunal against the orders of Departmental Officers and give suitable briefing before filing counter affidavits/reply on behalf of the Government or the concerned official. He should attend to the work relating to preparation of "BRIEF HISTORY AND PARAWAR REMARKS".

contd....
The Law Officer should also assist the Commissioner of Labour, Madras in sending draft notification under Special Rules and also in formulating adhoc/special Rules; as and when proposed to the Government.

The Law Officer should assist the Officers in Headquarters in regard to the prosecution under the various Labour enactments and give his opinion as to the need for taking up appeals on cases ended in acquittal.

He will hold conciliation talks with a view to settling the industrial disputes assigned to him by the Commissioner of Labour from time to time.

Any other matter assigned to him by the Commissioner of Labour, Madras from time to time involving legal implications.

VI ASSISTANT COMMISSIONER OF LABOUR (HEADQUARTERS)

He is a Conciliation Officer with State-wise Jurisdiction under the Industrial Disputes Act, 1947 and Inspector under the Payment of Bonus Act 1965. He is to assist the Commissioner of Labour in the disposal of Industrial Disputes in the State. In the Office, he is incharge of examining conciliation failure report and putting up remarks to Joint Commissioner of Labour and Commissioner of Labour.

VII. ASSISTANT COMMISSIONER OF LABOUR (CONTRACT LABOUR)

The work of this Officer is to attend to the papers connected with the enforcement of Contract Labour (Regulation and Abolition) Act, 1970. He is also the Secretary of the STATE ADVISORY CONTRACT LABOUR BOARD.

VIII. ASSISTANT COMMISSIONER OF LABOUR. 
(ESTABLISHMENT AND GENERAL)

This Officer is to assist the Commissioner of Labour and the Joint Commissioner of Labour in the matter relating to general administration and establishment. He is the appointing authority in respect of Basic Servants in Head contd....
Office and in the category of Junior Assistants/Typists/Steno-Typist throughout State. In the discharge of administrative duties he is vested with certain financial powers.

I. ADMINISTRATIVE OFFICERS:

These Officers, who are four in number are allotted different functions on the administrative side of the Department.

(i) Administrative Officer (General)

This Officer is incharge of all meetings and conferences in which the Commissioner of Labour is involved as a Member of Convenor as the case may be so far as this Department is concerned. He is assisting the Commissioner of Labour, Joint Commissioner of Labour (Administration), Joint Commissioner of Labour (Conciliation) and the Special Deputy Commissioner of Labour in drawing up of Agenda, convening meetings, drawing up of the proceedings of the meetings and after the meetings are over to take follow up action on the decisions of the various meetings of the Committees and Conferences convened. In addition, he is assisting the Commissioner of Labour in giving comments on papers relating to Indian Labour Conference, Standing Labour Committee and other Conference convened by the Government of India from time to time.

He is passing papers relating to amendments to various labour legislations such as Industrial Disputes Act, Payment of Bonus Act and other non-technical legislations. He is incharge of preparing policy note on 'LABOUR IN TAMIL NADU' to be presented to the State Assembly at the time of Labour Demand every year.

He is also incharge of the work relating to the processing of the applications under the Good Industrial Relations Award Scheme and papers relating to the State Arbitration Promotion Board.

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(ii) Administrative Officer (Weights and Measures)

He is notified as "Deputy Controller" under the Standards of Weights and Measures (Enforcement) Act, 1980 for the State of Tamil Nadu and assisting the Controller of Legal Metrology in the Administration of the Weights and Measures Legislation.

Attending to all files relating enforcement of:

2. Motor Transport Workers Act, 1961 and

(iii) Public Relations Officers

1. Incharge of Library.
2. Submission of Daily Press Cutting from various papers to the Commissioner of Labour.
4. Correspondence relating to issue press release from the Secretariat as well as from Headquarters Officers.
5. Preliminary arrangements in connection with the meeting organised at the level of Secretariat (Labour Department), Commissioner of Labour and Joint Commissioner of Labour including Television and All India Radio wherever necessary.
6. Attending meeting All India Radio in connection with the Workers' Programme Advisory Committee.
7. Receiving V.I.Ps. on the instruction of the Commissioner of Labour and Government.
8. Preparation of March of Events every fortnight and sending them to Editor Tamil Arasu and lo Government.

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9. Preparation and sending matters on Labour every fortnight to All India Radio, Madras, Trichy, Coimbatore and Tirunelveli in connection with the Broadcast in "Workers Programme"

10. Incharge of all petitions received from Chief Ministers' Cell and sending a monthly periodical report on the action taken by various departmental officers.

iv) Administrative Officer (Minimum Wages):

The post of this Officer has been treated especially to work as "Secretary" for the various Minimum Wages Act Advisory Committee to be constituted by the Government in advising them in the matter of fixations/revision of minimum rates of wages to the scheduled employments. In that capacity of the Officer is assisting the Deputy Commissioner of Labour (Minimum Wages) as well as the Commissioner of Labour in the fixation/revision of Minimum Rates of Wages to the Scheduled employments and also attending papers relating to the new employments to the schedule.

He is also vested with powers of signing bills for Headquarters office, in addition to his function as "Secretary" to the various Minimum Wages Advisory Committee constituted by the Government from time to time.

He is also incharge of the Section which is attending to papers relating to statistical return under various labour enactments which are due to the State Government, Government of India and the Labour Bureau, Simla.

REGIONAL OFFICERS:

JOINT COMMISSIONER OF LABOUR:

There are three Regional Joint Commissioners of Labour situated at Madras, Coimbatore and Madurai.

The Joint Commissioner of Labour, Madras is having jurisdiction over the Districts of Madras, Chengalpattu, North Arcot and South Arcot. The Joint Commissioner of

contd.....
Labour. Coimbatore is having jurisdiction over the districts of Coimbatore, Nilgiris, Periyar, Salem and Dharmapuri. The Joint Commissioner of Labour, Madurai is having jurisdiction over the Districts of Madurai, Ramanad, Pasumpon Muthuramalingam, Tamarajur, Anna, Tirunelveli, Tanyalkumari, Trichy, Thanjavur and Puducherry.

The Regional Joint Commissioners of Labour are assigned the following duties in addition to the general administration.

1. Conciliation Officers under the Industrial Disputes Act with State-wide jurisdiction.

2. Competent Authority to register Agreements under Section "3" of the Cine Workers and Cinema Theatre Workers (Regulations of Employment) Act 1981.

3. Certifying officers under the Industrial Employments (Standing Orders)Act 1946.

4. Specified authority to grant or refuse permission to effect Lay-off/retrenchment of workmen in Industrial Establishments having 100 or more workers under Section 25M/25N of the Industrial Disputes Act 1947.

There are seven Regions at Madras -I, Madras-II, Tiruchirapalli, Madurai, Tirunelveli, Coimbatore and Salem and each region is under the Control of a Deputy Commissioner of Labour. The work of the different offices in the Region is enumerated hereunder:-

**1. DEPUTY COMMISSIONER OF LABOUR:**

There are Regional Officers having Administrative Control over the Assistant Commissioner of Labour, Labour Officer, Inspectors of Labour, Inspectors of Plantations, Deputy Inspectors of Labour and Assistant Inspectors of Labour working in their regions. In addition they are assigned the following duties :-

Contd....
i) Conciliation Officers under the Industrial Disputes Act with State-wide jurisdiction.

ii) Conciliation Officers under the Cine Workers and Cinema Theatre Workers (Regulation of Employment) Act, 1981 with Statewide jurisdiction.

iii) Commissioners for Workmen's Compensation Act, 1923 in their respective jurisdiction.

iv) Additional Registrars under the Trade Union Act, 1926 in their regions.

v) Appellate Authorities under the Payment of Gratuities Act, 1907.

vi) Authorities under Section 15(2) of the Payment of Wages Act 1936.

vii) Authorities under Section 41(2) of the Tamil Nadu Shops and Establishments Act 1947.

viii) Appellate Authorities under Section 7(6) of the Equal Remuneration Act, 1976.

ix) Appellate Authorities to hear appeal against the order of the Registration/Licensing Officers under the Contract Labour (Regulations and Abolition) Act, 1970.

x) Authority to hear appeals against the orders of the Inspectors of Labour under Rule 32 of the Tamil Nadu Beedi & Cigar Workers (Conditions of Employment) Rules, 1968 in respect of disputes relating to issues of raw materials by the Employer.

xi) Authorities to hear appeals under the Tamil Nadu Payment of Subsistence Allowance Act, 1981 against the orders of the Assistant Commissioner of Labour in the Office of the Deputy Commissioner of Labour.

xii) Authorities to sanction prosecutions under Section 6 of the Tamil Nadu Industrial Establishments (Conferment of Permanent Status to Workmen) Act 1981.

contd...
xiii) Authority under Section 19(1) of the Minimum Wages Act 1948.

xiv) Inspectors under the various Labour enactments except Factories Act 1948.

The Deputy Commissioners of Labour, Madurai and Coimbatore are in addition to the above functions, are members of the (1) Regional Board for Workers Education, Madurai/Coimbatore and (2) Hospital Advisory Committee at Madurai/Coimbatore.

ASSISTANT COMMISSIONERS OF LABOUR IN THE OFFICE OF THE DEPUTY COMMISSIONERS LABOUR:

The posts of these officers were created in 1976 to attend to specific functions as Controlling Authorities under the Payment of Gratuity Act, 1972 and Inspectors under the Payment of Bonus Act 1965. At present these officers are attending to the following functions:

1. Controlling Authority under the Payment of Gratuity Act 1972.

2. Authorities to hear claims under Section 4 of the Tamil Nadu Payment of Subsistence Allowance Act 1981.


4. Conciliation Officers under the Industrial Disputes Act 1947 in their respective jurisdiction.

5. Inspectors under the Payment of Bonus Act 1965.


These officers are also assisting the Regional Deputy Commissioners of Labour in their administrative side.

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ASSISTANT COMMISSIONERS OF LABOUR (CONCILIATION) AND LABOUR OFFICERS:

There are 8 posts of Assistant Commissioners of Labour (Conciliation) and 20 posts of Labour Officer in the Region. The main function of these officers is the conciliation and settlement of Industrial Disputes in their respective areas as conciliation officers under the Industrial Disputes Act 1947.

1. Authority under Tamil Nadu catering Establishments Act 1958.
3. Authority to hear appeal under Section 31 of the Beedi and Cigar Workers (Conditions of Employment) Act 1966.
4. Inspector under the Payment of Bonus Act 1965.

INSPECTORS OF PLANTATIONS:

These officers are charged with the responsibility of enforcing the provisions of the Plantation Labour Act, 1951 in their respective areas as "Inspector" under the Act. They are also notified as Inspector under the Labour Enactments which are applicable to the Plantations.

ASSISTANT SURGEONS:

These Officers have to inspect the garden hospitals and dispensaries in Plantations and see whether they are sufficiently equipped and stocked with drugs and also to take action to redress the grievances, if any, on the part of the workers regarding non-provision or inadequate provision of amenities in the dispensaries or garden Hospitals run by employers as required under the Tamil Nadu Plantations Labour Rules, 1955 and to ensure that the provisions regarding medical facilities laid down under the Plantation Labour Act and the Rules framed under that Act are complied with by the Planters. To attend to this work, these officers have also been notified as Inspector under the Plantations Labour Act 1951. These Officers are under the control of the Chief Inspectors of Plantations.
INSPECTOR OF LABOUR:

These officers are responsible for the Enforcement of various non-technical Labour Legislations in respect of all establishment other than Factories and Plantations. In their work, the Inspectors of Labour are assisted by the Deputy Inspectors of Labour, Assistant Inspectors of Labour and Stamping Inspectors (for Weights and Measures only). These Officers are also notified as Deputy Controller of Weights and Measures under the Standards of Weights and Measures (Enforcement) Act, 1985. The Inspectors of Labour are assigned with the following statutory functions.


2. Licensing Officers under the Contract (Regulation and Abolition) Act, 1970 (in respect of establishments other than Factories.

3. Inspectors under the following Labour enactments:
   a) Tamil Nadu Shops and Establishments Act 1947.
   b) Tamil Nadu Catering Establishment Act, 1958.
   c) Tamil Nadu Industrial Establishments (National and Festival Holidays) Act 1958.
   e) Tamil Nadu Industrial Establishment (Conferment of Permanent Status to Workmen) Act 1981.
   f) Payment of Wages Act 1936.
   g) Factories Act 1948 (Section 85 (i)
   h) Minim Wages Act 1948.

contd....
These Officers are also empowered to conduct dependent enquiry on the directions of the Commissioner for the Wor\men's Compensation under the Wor\men's Compensation Act 1923.

A Statement showing the number of officers under the different categories and a statement showing the names of Labour enactments administered by the Departmental Officers are attached.

**INSPECTORS OF LABOUR:**

The posts have been sanctioned with a view to ensure effective implementation of the Labour Legislations with particular reference to women/child labour in establishments other than Factories. The Inspectresses have been notified as Inspectors under various Labour Legislations which apply to women and child labour. The offices of these Inspectresses are located in Tirunelveli and Coimbatore.
THE IRE OF RECOGNISED TRADE UNION.

In the beginning of the year 1991, the Management of the Company had a critical look at their recruitment practice. It was customery for the Management to take the recognised Trade Union President into confidence when the recruitments were made in the organisation. Although there was no written understanding to that effect, by convention this practice was acceptable to maintain good industrial relations. However, on their review, they found there had been talks about malpractises of extracting money from the prospective employees, and also, the management, in order to maintain its credibility had to revise this practice.

In accordance with such a decision, in February 1991, a set of 67 workmen were recruited from among those who worked in casual pool of the unit and who were all employees' children. This shift in practice was well applauded by the workmen at large and the people in the surrounding villages. However, this apparently caused an ire in the minds of Trade Union leaders. However, in their committee meeting they found there was no reason to cry out and they did not pursue with any agitative action.

During October 91, there came an issue of sale of sweets to employees at concessional price as it was customery during festival season. The Management considered the revision in the price of sweets from 75 paise to Rs.1.25. Since it was not coming under any bargaining system in the opinion of the Management, this decision was taken unilaterally and the price was announced. The Union reacted to this decision although all the workmen purchased the sweets in the same manner and same quantity as of previous years. At this stage the Union started their agitation by issuing hand bills and conducting public meetings, which are given sequentially here.
26.10.91 Handbill under the title "Danger signal in the Garden of Peace" was released by the Union. The Union had strongly criticised the act of Management in announcing the price increase for sweets and appealing to workmen not to buy them. They had also asked the workmen in the handbill:

a) not to accept the free sweet packet distributed for Deepavali; and
b) not to respond to the Deepavali Dinner invitation extended by the Management.

Note: Workmen bought the sweets in the usual manner and also received the free sweet packets.

31.10.91 Handbill under the title "Demon again": This notice also criticised the attitude of the Management in increasing the price of sweets by 66%.

1.11.91 Handbill under the title "The autocracy of the Management and their adamant attitude": Again highlighting the fact of unilateral increase in price of sweet from Rs.0.75 to Rs.1.25. Also it attributed the transfer of a union committee member as a victimising act of Management. On that basis, it appealed to workmen not to participate in the Deepavali festival organised by the Management.

Note: Union officials, who were invited for the function, inspite of personal appeal by the Director, did not attend.

8.11.91 Handbill announcing the General Body meeting on 11.11.91, to discuss the Management's attitude against workers' welfare.
21.11.91 Six page Handbill, placing 37 demands and giving notice of strike to commence on 4.12.91 if these demands are not settled. The demands were:

a. on employment of contract labour in certain jobs.
b. for giving full workload to piece rated workmen in cement loading and coal unloading.
c. extension of amenities to certain sections.
d. upgradation of certain categories.

The other demands were of very ordinary and routine nature.

26.11.91 Handbill under the title "We shall protect our basic rights" - demanding the colony gate in the northern side to be kept open during Kaliyamman festival days. If it is not done so, the bill warned that there may be untoward incidents any moment.

28.11.91 Handbill under the title "Let us unite, Let us fight, Let us win" - informing workmen about the conciliation meeting on 28.11.91 before the Asst.Commissioner of Labour, Trichy and its adjournment to 2.12.91.

2.12.91 Handbill asking workmen not to attend the monthly meeting conducted by the management on the first working day of the month i.e. on 2.12.91

Note 66% of the workmen attended the meeting, which is normal.

There was Union - Management meeting on 5.12.91 after the conciliation meeting before ACL on 2.12.91. Detailed discussions on contract labour employment was held and the matter was sorted out. It was also agreed to sit together to sort out the other issues.
6.12.91  Handbill under the title "Contract Commission Crazy" - The outcome of conciliation meeting on 2.12.91 before the Asst. Commissioner of Labour, Trichy, was explained. The management not to engage any contract labour, bilateral sitting to be held between Union and Management and to meet before the ACL on 9.12.91 for discussions. Also asking the workmen to be ready for agitation/fight.

11.12.91  Handbill under the title "Trend of talks" - about 9.12.91 meeting describing to ACL about the bilateral talks held on 5.12.91. Further bilateral meetings scheduled on 13, 14.12.91 and to meet ACL again on 20.12.91.

There was Union - Management talks on 19.12.91. Detailed discussions on Packing House working arrangements and revised working patterns were held. On 26.12.91, again discussions were held on the other issues and sorted out.

28.2.91  Handbill under the title "Success of our agitation" - describing to workmen as to how the 37 demands were settled by the intervention of ACL and through bilateral talks. It also highlighted itemwise list of demands that were conceded by the management.

On 2.1.92 further discussions were held on Packing House working and all the other issues in 37 demands.

On 9.1.92 further discussions were held on the enhancement of work opportunities to cement loading and coal unloading workmen.

On 17.1.92, the talks continued, and all the issues were settled with the exception of the following:

a) Supply of Terry Cotton uniform to workmen
b) Provision for encashment of Privilege Leave.
c) Supply of two pairs of socks.

The workmen agreed to leave this matter to the decision of the Whole-time Director and the issues raised on 26.10.91 were settled.