CHAPTER IV.

INDUSTRIAL RELATION IN STATE ENTERPRISE

In our earlier survey of developments of arts and industries it was pointed out that a considerable growth and diversification in industrial economy began from the 6th century B.C. onwards. Industrial enterprise was launched mainly by private initiative whether small handicrafts or bigger employers. Not much control on regulation in industrial economy by the existing political authority is seen in this period. The political thinkers considered the state as a mere policy maker, protector of life and property of the subjects and a receiver of the stipulated share of their produces for services rendered. The principle of laissez faire was largely followed. Under such circumstance the profit motive of the private enterprise rose high and this unhealthy concentration of wealth was in the hands of a handful of affluent people. This led to the exploitation of labour.

Political thinkers and economists for seeking remedies of this situation advocated that the state should interfere to get rid of the production for profit and replace it by a system of production for use. In this connection Benthan (1784-1832), an economist pointed out
capitalism's inequality. Further A.C. Pigou advocated to (i) mitigate inequality, (ii) to offset monopoly distortions and (iii) to correct for externalities.

According to modern concept of welfare state the state is not only a tax-collecting authority but also an agency for invigilating production and a sponsor of commercial units, enjoying monopoly in manufacturing or competing with private entrepreneurs.

In a country consisting of mixed economy one may find both private and state initiatives and control in production. The mixed economy is characterised by government ownership of the major means of production, control over principal industries, co-ordinated planning, redistribution of income and gradual extension of government ownership.

The interference of state in the field of industrial relation is found with the foundation of the Maurya empire in the 4th century B.C. The role of the Maurya government as a producer both in agriculture and in industry is reflected in the account of Megasthenes, Asoken inscription and Kautilya's Arthasāstra. The most
important theoretical treatise from our point of view is the Karutilya's *Arthasastra*. A text on political economy, the *Arthasastra* considers *artha* or wealth to be the supremely important factor in statecraft.

Apart from directly participation in some industrial production the Mauryas maintained a strict control over the workers. The state adopted the following measures:

(i) The appointment of special benches of three magistrates:

Pradeshtarastrayo va amatyah kantakasodhanam kuryah

Three magistrates, (all) three (of the rank of) ministers, shall carry out the suppression of criminals.

From the term *Pradastaraḥ* it is clear that there officers were principally magistrates who punish criminals. Thus laws and regulations were under the control of these magistrates.

(ii) Specification of the terms and conditions of work of the workers along with penalties for their violation.
And they shall carry out the work with the place, time and (nature of the) work stipulated, without stipulation as to place or time if the nature of the work can be pointed out (as the reason) (4. 1. 4). For exceeding the time limit, (there shall be) a reduction in the wages by one quarter and double that is fine (4. 1. 5). They shall be liable for what is lost or destroyed except in case of a sudden calamity. 5

In the modern industrial set-up there is a department named "work-study". 6 This department stipulates the time for the job allocated to the workers. For exceeding the time limit wages is not deducted but the production incentive is reduced. Any deduction from total emoluments of the workers is advocated.

(iii) Fixing the rates of their remuneration.

Ślakhaṇa-sthūla madhyatāṁ cha sūtrasya
viditvā vētanaṁ kalpayet; bahu-alaptāṁ cha. 7
He should fix the wages after ascertaining the fineness, coarseness or medium quality of the yarn, and the largeness or smallness of quantity. In this context it is clear that there was an inspection department otherwise how the quality and quantity were ascertained. In the modern set-up of industrial lay-out inspection department is absolutely essential. So it will not be unreasonable to think that Kautilya's policy to determine the quality and quantity of material is nothing but a replica of the modern set-up.

(iv) An inquisitional control over the workmen.

Krtakarma pravâna kâla vetana nispatibhih
...... śachchhet.

He should cause work to be carried out by artisans producing goods with an agreement as to the amount of work, time and wages and should make close contact with them. The term '[karma]pramâna' points out the standing formula for piece-rate work. Secondly the term Pratisamargau indicates the close touch with the workers. This is highlighted in the activity of the Superintendent of the Armoury. He should know them by their class, appearance, characteristics, quantity, source, price and place of storing (Jatirupa lakâhana pramânâgama mûlya nîkhepschôpalabbeta). Thus
it is of vital importance, because Kautilya has made an attempt to create a relation between the employer and the employee.

There are the general norms over the industrial workers in state organised factories. Besides this there are two types of industries, viz. — (1) the state has monopoly over some industries and (ii) there are some industries where activities were supervised by the state officers.

First, we shall start our discussion with the state monopoly. The state has monopoly over mines: (Akarādhyakshas ..... parikṣēt). "The Director of Mines, being conversant with the science of (metal) veins in the earth and metallurgy, the art of smelting and the art of colouring gems or having the assistance of experts is there, and fully equipped with workmen skilled in the work and with implements, should inspect an old mine, where there are ores in the earth, in rocks or in liquid form, with excessive colour and heaviness and with a strong smell and taste." Secondly the Director of Metals should establish factories for copper, lead, tin, valkrntaka, brass,
steel, bronze, bell-metal and iron. It may now be asked whether the Arthasastra ruler by the dint of his monopoly right over mines also engages himself in actual working of mines to the total exclusion of all private enterprise in that field. Kautilya advises that a mine costly in its working, should be leased out for part share, while only a light mine should be directly worked by the king (yayakriya bhārikṣakūrṇa bhāγena prakrayena va dadyet, lāghavikamatmanā kārayet). Thus the ruler inspite of being lord of all mines allows private enterprise to work out some mines on the consideration of the cost involved. The reason of his renouncing the right to work out a mine himself is plainly economic. The financial involvement of the state for mining is carried only upto an economically advantageous stage. By allowing private enterprise to work out a mine requiring heavy investment, the king, however, does not suffer a loss; because, as the theoretical owner, he is entitled to a stipulated share of what is earned or procured out of such a mine. Thus Kautilyan scheme seems to have yielded two advantages: (i) the king may monopolise the entire process of mining if situation so demands, and (ii) the king is relieved of high operational cost in some cases and at the same time earns a
part share of minerals and/or even as royalty without any financial involvement and organisational responsibility.

Kautilya also advocates that the state had monopoly over forests. Kautilya classifies forests under four categories:

(i) forests of wild animals (pasu-vana)
(ii) forests of domesticated animals (mriga-vana)
(iii) economic forests (dravya-vana)
(iv) elephant preserves (hasti-vana).

We are here concerned with the third category, viz., economic forests. The Dravyavana is placed under the charge of the Director of Forest Produce (Kupadbyaksa). He is empowered to fix dues from there cutting produce forests also penalty in cases of distress. (Dravyavana cchidam ca deyatrayam ca asthipayed-anyatrapadbhyah). The Arthasastra state is not satisfied with the mere possession of forests but establishes factories to utilise forest products intelligently. The raw material and the factories of forest products are owned and managed by the state, suggestive of the concentration of economic power in the hands of the king.

There are some industries where activities were maintained by the state officer as mentioned below.
The Superintendent of Gold/build[ed] a workshop with a court yard, having four work-halls without inter-communication with a single door for the manufacture of gold and silver. There was a strict restriction for entrance into the factory. An authorised person shall not approach the workshop. Restriction was not only imposed on the outsiders but also on the workers. Workmen shall enter and leave the factories after their garments, hands and private parts are searched.

If we can go in detail the present system of factory security, we must find that there is no difference in between the modern factory system and Kautilya's factory system. The workers should finish the work according to time and nature of work stipulated. (निर्दिष्टदेशा-काल कार्यार्थ कार्यार्थ निर्दिष्टदेशा कालम कार्यापदेशां) The Superintendent of the Armoury should cause to be made machines for use in battles, for the defence of forts and for assault on the enemies' cities, also weapons, armours and accoutrements by artisans and artists expert in these lines, producing goods with an agreement as to the amount of work, time allowed and wages. The Superintendent of yarn should cause work to be carried out by artisans
producing goods with an agreement as to the amount of work, time and wages.\(^{28}\) (krtakarma pramāṇa kāla vetana phala nispaṭātibhiḥ karu misra karma kāryet).\(^{29}\) The Superintendent fixed up the wages on the basis of the quality.\(^{30}\) (Śākhana-sthūlamadhyaṃ cha sūtrasya vidityā vetanaṁ kalpayet).\(^{31}\)

Women labour was employed in the textile industry.\(^{32}\) We find the different categories of women were employed in industry. Moreover, the wages were determined on the quality basis. In this connection it is interesting to note that the workmen were sometimes asked to work even on festive days and because of their extra work on festive days they were honoured with gift\(^ {34}\) (Tithisbhu Pratipādanaśca).\(^ {35}\) But it is not clear whether they were paid as the modern system of payment for working on the festive days is prevalent. In case of non-performance of work there was a provision of fine\(^ {36}\) (Karu-ōkura bhrtakasya dvadasa-pana dandaḥ).\(^ {37}\) To standardise the product the superintendent established factories for manufacture of weights and measures\(^ {38}\) (Pautavādhyausā pautva urmānta kārye).\(^ {39}\)

In this context Kautiliya advocated the following measures:

(a) A state factory was founded for the manufacture of weights and measures and a special officer called the
gautavadhyakaha was placed in charge of the same.

(ii) The inspection of weights and measures was to be carried out by the Pautavadhyakaha every fourth month.

(iii) A series of balances was to be manufactured so as to give a maximum advantage to the state in the collection of its dues.

A half-masaka, a masaka, two, four, eight masakas, a swarna, two, four, eight swarnas, also ten, twenty, thirty, forty (end) one hundred (swarnas), are denominations of weights.

The above discussion is principally based on the Kautilya Arthasastra. The Arthasastra clearly depicts the state not merely as a political entity but an economic organisation too. The economic activities of the state may be classified under the following heads, viz.

(i) State monopoly
(ii) State-managed organisation
(iii) State-undertakings.

The downfall of the Maurya empire in the early part of 2nd century B.C. not only brought changes in the political history but also in the economic life. The principal distinctive
feature in the economic life of the post-Maurya phase is the near absence of the managerial role of the state. The hallmark of the economic life of the post-Maurya phase which witnessed brisk industrial activities and widespread commercial contact, is the increasing degree of private enterprise in industries. Under such circumstances initiative and enterprise of the political authorities of the post-Maurya phase in industrial economy is a rarity, particularly in comparison to the Maurya Period.

The available sources of our information — epigraphic and literary — nevertheless show that the state had some interest in at least one vital industry, i.e. mining. We have discussed in the earlier section on the growth and development of mining industries of this period. Without going into details of these mining industries it can be suggested that sometimes private enterprises were allowed in mining industries by the political authority in return of the stipulated share of the products of the mines or its equivalent in cash. Examples of such mining industries can be cited in the working out of diamond mines in Ākara (earlier Malwa). The term Ākara literally means a mine. Interestingly
enough Claudius Ptolemy (c. 150 A.D.) refers to an area called Cosa, situated to the east of Namados (i.e. Narwada) which yielded diamonds. From the description of Ptolemy, Cosa appears to have been situated in or near or somewhere around Eastern Malwa. All these may show that Cosa and Ateara probably fell within the same region i.e. Eastern Malwa. It may logically be inferred that Eastern Malwa or a part thereof was given the name Akara because of the existence of diamond mines there.

It is of course difficult to say categorically that all these mining industries were conducted under direct state initiative. The account of Lama Taranatha, despite being a very late source, may indicate that diamond mines in earlier Malwa were worked out under the authority of the Kushâna emperor Kanîśhka I. The Rgyager-chos-h byum of Târanâth says "Twenty-eight diamond mines having been recently discovered, he lived in great wealth." The account of Taranath when studied in the light of contemporary Kushâna epigraphs shows that the area of Malwa was conquered and its diamond mines were worked out by Kanîśhka. The ruling authority seems to have been the owner of these diamond mines.
We may here also discuss another source material contemporary with the reigns of early Kusana rulers. The *Naturalis Historia* of Pliny describes: "There are also mountains of natural salt, such as oromenus in India where it is cut like blocks of stone from quarry and even replaces itself, bringing greater revenue to the kings than those from gold and pearls." The Oromenus mountain in India, referred to by Pliny, may be identified with the salt range in modern Pakistan. The area in question is known to have formed a part of the Kusāna emperors at least in the last quarter of the 1st century A.D.

The statement of Pliny once again mentions that the king was the owner of mines and mineral objects. The revenue earned by the king from salt seems to have been same sorts of a licensing fee paid to the political authority by private persons who worked out such quarries of salt stones since salt was a basic necessity for people of every section of the society, that article would be in constant demand. Thus salt quarries had to be regularly worked out and consequently the royal treasury would be always enriched from its revenues as licensing fees. On the other hand gold and pearls, though extremely valuable mineral objects, appear
to have been within the purchasing power of a much smaller section of the society i.e. the affluent group. That's why Pliny said that revenues from salt mines were more than those from gold and pearls.

The Periplus throws some light on the state interference in the pearls-fishing industry. In the Periplus Ceylon on the one shore and Colchi (Kolkai) of the Pandya kingdom were centre of pearls fishing. Ptolemy mentions pearl-fishing in the Kolkhic gulf, i.e. in the gulf of Manar in South Tinnevelly. The Periplus explicitly mentions that pearl-fishing were under the direct authority of the Pandya ruler. According to the same account persons actually employed for procuring pearls from sea-bed were condemned criminals. In case such labourers lost their lives in course of driving into deep sea for procuring pearls, the king seems to have had little responsibility for life of the driver. The simple reason was that the driver had already been awarded death sentence. We may further surmise that such drivers who could survive from deep sea-driving, were not necessarily paid as regular industrial labourers. This
type of job was assigned to them precisely because they were about to die. Thus the political authority who put their prisoners into sentence, had neither any responsibility for their life nor had to pay any fee or wages. Thus the relations between the employer and the employee in this industry heavily tilts to the economic advantage to the political authority.

It may not be out of context here to refer to the information of Junagadh Rock Inscription of Rudradāman I. In Junagadh Rock Inscription valuable information regarding the reconstruction of dams of Sudarsana Lake which was severally damaged due to a terrible storm. Rudradāman is credited in this record for repairing this dam. Out of his own expenses (Sasmāt Kośāt) and not by oppressing the people with taxes (apdayitva kara-viṣṭi-pranaya kriyābhīḥ paurā-jana-padam-janaḥ). It appears that Rudradāman made a noble and notable departure from established practice of employing unpaid labour in construction or re-construction of public utility projects. Though the reconstruction of the dam is not strictly connected to industrial activities, workmen employed for the same are apparently skilled and technically equipped labourers.
We may infer that there was a tendency to employ unpaid labour to the economic advantage of the political authority.

During the Gupta period, a change in the industrial activity is observed. There is nothing to show that the state itself played a very important part in industrial production as it did in the Maurya period. Of course the people were not permitted to utilise the available resources for productive purposes without the consent of the state. The mineral wealth and the reserve forests were the absolute monopoly of the state as we have seen from the Poona and the Riddhapur plates of Prabhavatigupta. This kind of reservation is also recorded in the Siwani and the Chammak copper plates of Pravarasena II.

The mines were completely worked out by the state. This is supported by the evidence of Amarakosa. The Meharsuli Iron Pillar of King Chandra shows the high water mark of craftsmanship in iron work. To manufacture this huge monolithic pillar a very large iron foundry and a group of highly skilled iron workers were required. In this context Parcy Brown remarks that it is a remarkable tribute to the genius and manipulative dexterity of the
Indian iron-workers. Thus it will not be unreasonable to think that side by side with the small iron foundries or workshops, there were also very large foundries in the Gupta period perhaps owned by the state. Another evidence in this context is the colossal copper statue of Buddha about 7½ ft., which testifies the massive copper-use in those days like the big iron foundries. There were also big copper industries which may be owned by the state.

The pearl-fishing was the state monopoly. It was a flourishing industry in Ceylon. The state control of pearl-fishing is evidenced also in Assam. 

Salt is an essential object in our everyday use. But we have no definite evidence that the Guptas monopolised it. Of course under the Vakatakas the salt industry was the monopoly of the state.
NOTES

35. *Kautilya Arthaśāstra*, 2. 23. 5.
43. Ibid., pp. 22-23.
44. H. Rackah (trn.), The Naturalis Historia, XI. 1.
45. AN. Bose, Social and Rural Economy of Northern India, p. 272.
46. Ibid., p. 272 f.n.
47. Epigraphia Indica, VIII. 11. 15-16.
48. Ibid., XV, p. 42, l. 17.
51. J.F. Fleet, op. cit., p. 139.
52. Parcy Brown, Indian Architecture (Buddhist and Hindu), p. 61.
53. S.K. Maity, Economic Life of India in Gupta Period, p. 102.
56. Kalidasa, Raghuvamsa, IV. 49. 50.