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**Editorial Notes**

**Floods :**

This year we have been rather unfortunate in the heavy distress that has been widely suffered through floods due to untimely and abnormally heavy rains. The dams that have been constructed were not sufficient to control the floods. The D.V.C. project being essentially a multipurpose one, did not, unfortunately, have full control of floods. In every project having more purposes than one, there are usually several conflicting requirements which cannot all be provided for and some compromise has to be made. The requirements of Flood Control conflict with requirements of Irrigation. The major purpose being, in this case, Irrigation, Flood control has been sacrificed to a certain extent to reduce the cost of the project.

It is now well worth pondering whether, by refraining from building at an earlier stage all the required dams known to be necessary for Flood control, the saving that was then thought to have been effected has in reality been worth while in view of the magnitude of the funds that have now to be spent in giving relief to those who have been seriously distressed by the floods. No amount of money will return the *lives* that have been lost, though some food, shelter, clothing and property may perhaps be distributed with the help of money.

Flood control has a bearing on the *safety of life* which should not be overlooked and should not be gauged in terms of money.

Our planners and administrators would do well to remove all restrictions against flood control and arrange to obtain all the finance necessary for it, even though Irrigation and Power projects may suffer to some extent and no monetary return may immediately be apparent from such flood control. The lives that will be saved by this means will be ample return for the money that may be deemed to be lost.

#### **Prospects :**

The period of the 2nd five year plan is drawing to a close and the 3rd five year plan is now almost ready. The serious drain of Foreign Exchange seems to have been held and a slight improvement has taken place. Some of the development projects have commenced functioning. It is too early yet to assess the benefit derived from them. Production in almost every sphere of industry has increased during the year. Many new industries have been set up offering opportunities for more employment and the future is hopeful.

#### **“ Mechanization ” and the “ Human balance sheet ” :**

Since the last world wide trade depression much thought has been given towards efforts to keep men at work, keep their salaries up, and to put into effect all possible palliative measures. A great many people have pointed to the engineering group as the ones largely responsible for what is termed, “ technological unemployment.” Engineers with automatic and semi-automatic machinery are said to be displacing so many men that a large number have to remain unemployed. To prevent increase of unemployment labour laws have been effected in such a manner that in some cases it has caused compulsory retention in employment of superfluous labour, leading to inefficiency.

It is often overlooked that a man of little experience brought in to operate an improved productive tool does more work for society than a skilled craftsman working manually and can be paid more. It is possible to extend to many men and women a field of industry that would otherwise be closed to them. For instance, watches are not made by watch makers, nor typewriters by mechanics. Behind all these products stand a different group of men, the machine arts type, designing and exploiting machines, and then a very large number of men who otherwise could take no part in industry, producing these goods. All the standardised manufactured goods made today are produced in this manner. That is to say, this displacement of men by machines has another effect that should not be overlooked. Industry is extended, and has been extended, to many

millions of people that otherwise could find no part in industry and they are elevated economically.

Technological unemployment is only one effect of mechanization. There are other factors to be considered. When machinery plant costing a great deal of money is introduced to change a given method of production, the ownership of the tools of industry is further and further removed from the worker to the financiers. The desire to return the ownership to the workers and the methods of doing so has exercised many minds and led to formation of parties such as "socialists" and "communists" and to dissension as to whether wages, bonus, commission, profit-sharing, pension, providend fund nationalisation or any other provision is the best method.

There is no doubt however as to the importance of the extension of the field of labour and the elevation of whole peoples by means of these new methods of mechanized production of standardised parts.

Census reports taking account of factory workers and handicraft in highly industrialised Western Countries show that while handicraft in some industries had almost ceased to exist so far as manufacturing was concerned, there are now more men engaged in factories in the same industry.

For instance, the Shoe making industry in America. This is one of the industries that have been completely changed from handicraft to modern productive methods. Shoes are now made there with complicated, costly machinery, skilled operators, and a few technically trained men to keep the factory in operation. No cobbler can be found there who can build a shoe. But the census shows there are more men making shoes in shoe plants today than were employed at shoe-making 60 years ago. The same is true of the printing industry and other industries.

If a quantitative study is made of the weaving, shoe making and other industries in India a similar tendency may be noted. While some dreaded displacement and unemployment has undoubtedly taken place the expansion and absorbing power of modern industry should not be lost sight of. A new invention like the Telephone or Radio or a new Industry can bring about an expansion that will absorb not only persons displaced from old industries but also the rising new generation. It is our duty as engineers to seek out new fields for employment so that any unbalancing of population that may be brought about through technological unemployment due to mechanical production methods may be overcome and the "human balance sheet" successfully balanced.