

MOTIVATION OF FORESTRY WORKERS

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ABSTRACT

In 1979 a study of the logging labour force was undertaken in the Bay of Plenty. Both private and state sector logging workers were included in the study which investigated, amongst other things, factors which motivated logging workers. The study was carried out under the direction of the Logging Industry Research Association with the co-operation of the New Zealand Timber Workers Union. The study is summarised in L.I.R.A. Report No. 6, Vol. 4, 1979.

In 1982 a study was carried out on silvicultural workers at Aupouri State Forest, Northland, in order to investigate factors which motivate silvicultural workers. In both studies the investigation took the form of a questionnaire which was constructed with the help of the Sociology Department of Canterbury University and the Industrial Psychology Department of Massey University.

The following paper highlights the findings of these two investigations and offers a viewpoint on the subject of motivation of forestry workers.

LOGGING WORKERS

Generally there has been little research done on the motivation of forestry workers in New Zealand, yet such investigation could have substantial economic and non-monetary benefits for the forest industry. The demand for forest workers in the logging industry indicates that there will be a shortage of skilled workers in the near future. The reasons for the predicted shortage were investigated in the 1979 study on the logging labour force and were found to include factors such as the low economic and social esteem loggers had for their vocation and their subsequent reluctance to encourage sons or friends into logging as a life-long career.

Motivating factors such as these indicate that the forest industry needs to change its image in order to attract recruits who will view logging as a professional career. As the majority of loggers have obtained their jobs through direct, personal contact with

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friends or relatives already in logging crews, the image of the job painted by those in it largely dictates the recruitment pattern of future recruits. If the motivation of logging workers is low such that their encouragement of friends or relatives into the industry is also low, then a future shortage of labour is imminent. The 1979 study revealed that workers may be highly motivated towards their job but at the same time discourage others to follow it. This was chiefly attributable to the poor image the men had of logging as a stable life-long career.

Clearly the motivators of present logging workers will influence future recruitment. The study showed that the most common reason for choosing logging as a career was the outdoor way of life, with monetary gain being of secondary importance. This attitude was similar amongst both private and state logging workers which reflects a common view of rural workers that, "money-wise", jobs are usually better paid in the cities. During the interviews with loggers it was often stated that the individual had left his job in the city for a lower paid outdoor job in the forest. The benefits of the logging job, where the individual largely sets his own work pace out of doors, must obviously outweigh the disadvantage of lower pay.

For those workers who placed money as a motivating factor higher than the outdoor environment, or the job autonomy, the majority had the ambition of eventually becoming a logging contractor in their own right.

The problems of the logging contractor as a small business man have been explored by a number of New Zealand authors (Frazer, *et al.*, 1977; Terlesk, 1978, 1979). Certainly it is clear that, against the positive side of contractor work design, such as autonomy, variety, rapid feedback on effort, and challenge, are the negative aspects such as the uncertainty of contracts, high interest rates on loans, shortage of skilled and motivated workers. Indeed Terlesk (1978) asked whether the New Zealand contractor manpower pool was in danger of drying up.

Private forest companies and contractors concerned with the recruitment of logging labour need to be aware of the motivators of logging workers. Workers essential in an efficient logging crew include men skilled in hydraulics, welding, diesel mechanics, wire rope splicing, and chainsaw maintenance. Those loggers interested in becoming private contractors will also need to have a high degree of proficiency in business and personnel management.

The state of the logging contract business will dictate the number and quality of individuals prepared to move in. The attitude of private forest companies and the State towards the encouragement of the logging contractor will greatly influence the state of the industry. If the forest industry is to prepare for the expansion which will take place over the next decade, it must realise that present attitudes of loggers towards the job will dictate the numbers and quality of future workers in the industry.

SILVICULTURAL WORKERS

In order to assess the motivation of a sample of silvicultural workers in the State sector, a survey was undertaken in the Aupouri State Forest, Northland. Aupouri Forest was chosen as the writer was familiar with it and also because of its large work force. A questionnaire was designed with the help of the Industrial Psychology Department of Massey University.

The aim of the study was to improve the understanding of the work force and, from the results, determine areas in the forest organisation which need improving.

Unemployment in Northland ranks among the highest in New Zealand; the opportunity for the unskilled to find jobs in the area is therefore very low. This is particularly so for Maoris between the age of 15 and 19 years who, according to the 1981 Census, comprise the highest percentage of the unemployed (Anon., 1982a).

The 1982 study of the Aupouri work force revealed that the prime motivator of the forest worker was money, in contrast to the majority of logging workers who placed factors such as the outdoor environment and work variety above money as the motivator.

The Aupouri study also showed that the work variety for silvicultural workers is not high compared with logging workers who often rotate jobs within the gang during the operation. The situation for the silvicultural worker, therefore, is becoming increasingly factory-like with little variety and low job satisfaction. The evidence for this is seen in the increasing rate of absenteeism and in the growing number of grievances amongst workers. This has led to a general strengthening trend in the once non-militant union.

The decreasing work variety of State silvicultural workers has been brought about by several factors. The large planting achieve-

ments in the 1960s and 1970s necessitates, on certain State forests, large silvicultural programmes. The large work force required has largely become specialised with private contractors responsible for undertaking production thinning operations and State wage workers involved mainly in pruning and planting operations. The trend is for privatisation to occur in operations involving large capital input in the form of machinery. This has been advocated on the basis that the private sector is more cost effective and efficient. (Anon., 1982b).

The division of work has resulted in State workers being involved in most forests in only two phases of silviculture, for example, low pruning for eight months and hand planting for three months. The decrease in the work variety for both State and private silvicultural workers would suggest that the labour turn-over rate would be increasing. In an area such as Northland, however, where there are a few job alternatives for the unskilled, the reluctance to leave the present job is very high. In the Aupouri survey the majority questioned stated that they would stay with the job only because they had no opportunity of alternative employment.

When assessing the motivation of workers, it is necessary to take into account demographic factors which may affect motivation either positively or negatively. It was found, for example, that the education level of new recruits into silvicultural work is rising. This factor could significantly contribute to dissatisfaction amongst educated workers whose level of job expectation may be higher than uneducated workers. The absentee rate amongst 50 new recruits is presently 20%, or one day off in five, compared with the average absentee rate of 16% for the whole Hukatere Division work force at Aupouri (A. E. Russell, pers comm.). Other demographic factors such as race and ethnicity may well influence attitudes towards work. It is interesting to note that, in the forest industry, where Maoris comprise the majority of the silvicultural work force in Northland, few are found in management positions.

The situation emerges of a work force which is primarily motivated by money, which is largely unsatisfied by the work content of the job, but which is held to the job by the fear of becoming unemployed. Coupled with these attitudes is the prevailing concern of the State sector forestry workers that the security of their job is uncertain. This attitude has been occasioned by the perceived attitude of the government that the private sector is more cost effective and efficient, as evidenced

locally by the trend to place more and more work in the hands of private contractors.

It is apparent that workers' interpretations of management's attitudes and intentions are sometimes completely erroneous. Nevertheless, the worker cannot avoid perceiving some attitude in management and if his information is wrong, then the failure is management's for failing to communicate effectively. An understanding of workers' attitudes and motivations is essential to avoid grievances developing into disputes. The study points to a need for improved communications between forest management, workers and the union.

MOTIVATION AND PRODUCTIVITY

Those interested in motivation of forestry workers usually are involved in either productivity, training, recruitment or accident reduction. It was found at Aupouri State Forest that the level of gang productivity increased approximately 25% after a target system was introduced in 1979 (D. J. S. Ogle, pers. comm.). The system determines for example, the number of trees to be low pruned per man per work day. A contract standard is derived through the standards formulated for Aupouri conditions by the Forest Service Work Study Unit. The target for wage worker crews is 87% of the contract target and the system does not include bonus payments or other monetary incentives for achieving or exceeding the set target. The explanation, therefore, for increased average gang productivity lies in the goal setting condition itself. Rather than being told to work under a "do your best" condition, workers at Aupouri are given a target under a "goal setting" condition. Each man knows exactly what his daily productivity is meant to be and clearly this assigned target acts as an incentive. In silvicultural gangs where the work pace is usually competitive amongst workers, the introduction of a formal set target or goal can raise productivity.

Although productivity may be enhanced by the implementation of goal setting it does not necessarily follow that workers' job satisfaction will also increase. The use of production targets tends to increase the competitiveness amongst individuals in silvicultural crews, and between crews. Where members are expected by management to achieve the same target for differing rates of pay bitterness can often develop. Aupouri workers questioned about work improvements which would give them increased job satisfaction ranked "increased pay" highest, fol-

lowed by "better promotion prospects". The emphasis placed upon money by the workers and its close association with promotion can lead to jealousies amongst the work force, especially in small close-knit communities. Feelings of distrust may become directed towards management and such attitudes are extremely difficult to nullify.

Improvements in worker motivation may not lead to detectable improvements in productivity but research has found that absenteeism and grievances generally decreased with higher motivation. Production can be increased by implementing incentives such as goal setting. Further increases in production may be achieved by participative goal setting where workers take part in determining work rates. Participation serves to motivate job performance by leading to the establishment of and commitment to specific hard goals. Such increases in productivity require stimulation, counselling and encouragement from management to ensure that crews are committed to the goals (Latham and Yuki, 1975). These increases in productivity which result from a change in management can occur without administering monetary incentives for goal attainment.

CONCLUSIONS

In studying the motivation of loggers and silvicultural workers it is apparent that there are two distinctly different types of motivators present. The multiple skills required in a logging crew enforce team spirit in contrast to a silvicultural gang where the emphasis is upon individual effort and where the time required to achieve proficiency is far shorter than in logging. Recruitment and training is, therefore, of greater importance to the logging industry than for silvicultural operations. The turn-over rate of labour within a logging crew can significantly affect productivity, but the short period of training required in silvicultural operations and the emphasis upon individual work effort means that labour turn-over and shortage of skills are comparatively inconsequential problems.

The majority of silvicultural workers are employed by the Forest Service, while the logging industry is primarily composed of private contractors. It is in the logging sphere of the industry that the expected shortfall of skilled labour is likely to occur. From March 1976 to February 1981 the number of people employed in forestry and logging rose from 7 800 to 9 400, an

increase of 20.5%, the second largest increase percentage-wise of all industries within New Zealand (Anon., 1982a). The movement of labour from silvicultural work into logging is unknown, but this source of recruitment will be important in the future.

In the logging and silvicultural sectors of the forest industry the efficiency of operations depends upon the management of personnel. Motivation affects the number and quality of workers entering the industry as well as their performance on the job. Forest management in both the private and public sector must be willing to accept changes and new developments in the science of personnel management. Inward thinking and unwillingness to change will lead to increased inefficiencies and shortages in the forestry manpower resource.

Forestry work is rapidly changing from what has been traditionally "farm-like" to a "factory-like" situation. Accompanying this trend are the attendant problems of industrial conflict, low motivation and shortage of skilled labour. In all industries where organised labour and organised management exist there are areas of conflict. This is becoming increasingly obvious in the forest industry from silvicultural workers through to pulpmill workers. Increased efficiency can be brought about in all sectors of the forest industry by improving human relations and this will require new management attitudes. An understanding of the work force is paramount to an understanding of the complexities of motivation. This understanding requires effective communication which it is management's prerogative to establish within the organisation. Of equal importance to the need for management to communicate is the need for management to listen.

The forest manager who has a genuine desire to understand workers' attitudes—which he must do if he is to play his part in improving industrial relations—can do no better than to leave his desk for a week and work back out in the forest alongside the workers, be they contractors or wage workers. A manager's job is to deal with people and such a step would give him invaluable insights into attitudes different from his own which should equip him better to deal with labour problems. Presently, the manager's basic attitudes are company or organisation-orientated—a factor which is severely hampering his understanding of workers and, indeed, serves to maintain the very gap he should be endeavouring to bridge.

RECOMMENDATIONS

Both the State and private sectors of the forest industry should change their public image in order to attract personnel who will view the work as a life-long career. The logging sector must become professionalised with an apprenticeship scheme similar to that of other trades. The scheme will have to aim at producing skilled loggers with training in both practical logging aspects and in managing a business, as a large proportion will eventually become private contractors.

The State silvicultural sector should be used as a training ground for personnel who may progress into either private or State silvicultural contracting or contract logging operations. The State can act as the initial tutor, instructing workers in correct work methods, equipment maintenance, supervision of crews and calculation of targets. If the trend in the public sector is for privatisation then the State forestry sector should prepare the work force for this transition.

The forestry and logging industry is the second fastest growing employer in New Zealand. The majority of personnel entering the industry are unskilled and require training not only in work methods but in the discipline of work itself. The forest industry has the potential to alleviate unemployment to a large extent, particularly amongst the young rural (and in some regions predominantly Maori) populations. Forestry should not, however, provide temporary employment but should be seen as a career by both worker and management.

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