

# Improvement of working conditions and environment

## A Peruvian experiment with new forms of work organisation

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This article<sup>1</sup> sets out to describe and evaluate the initial results of a Peruvian experiment in making work more human. It was conducted in a group of small and medium-sized urban undertakings in what is known as the "associative" or "self-management" sector, terms which have been used almost synonymously in Peru since 1968.

The experiment consisted of a number of activities carried out by the National Institute of Research and Action for Development (INDA) with a view to making such undertakings more viable, promoting systematic participation by workers in decision-making and, above all, improving working conditions and environment and introducing new forms of work organisation. The article concludes with an evaluation of the results obtained at the end of the project's two-year span and points to some lessons that might be useful for other developing countries in which similar exercises are being planned or carried out.

### Structural changes between 1968 and 1980

When the Revolutionary Government of the Armed Forces (GRFA) came to power in 1968 it set itself a number of goals. These included reforming the structures of the State and the country's economic, social and political institutions with a view to improving the living standards of the less privileged population groups and eventually establishing a "social democracy based on full participation".

In many ways the GRFA's initiatives in the economic and social field may be said to fall into two separate periods, the first lasting from 1968 to August 1975 and the second from 1975 to 1980. Between the two there was

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a switch in the Government's objectives, means and policies which was evidenced by a change in the roles assigned to the State and to private enterprise in the production system as regards the composition and sectoral distribution of national production and in the process of capital accumulation.

The policy of nationalisation and expropriation focused on the largest foreign undertakings engaged in the extraction and processing of petroleum and minerals, in fish marketing and in agro-industrial activities. A number of large state undertakings were established and in the agro-industrial sector farm management was taken over by new agricultural production co-operatives.

Under the land reform legislation farms of over 150 hectares were expropriated and handed over to workers organised into "associative" undertakings of various types.

Foreign-owned manufacturing firms were not affected immediately and directly, although the General Industries Act reserved certain lines of business for Peruvian capital and provided for the establishment of "industrial communities".<sup>2</sup>

One of the most notable results of these structural reforms was the expansion of the public sector of the economy, which was regarded as both the means and the end of economic policy. In this sector a heterogeneous group of undertakings eventually controlled approximately one-third of the country's GDP and employed almost 20 per cent of the total labour force in the modern sector.<sup>3</sup> However, far from making a profit, the state undertakings required increasing subsidies to cover their operating losses. Towards the end of the second period some of them had even begun to return to private ownership: this was especially the case with undertakings which, because of their product specialisation and the markets they catered for, were potentially profitable.

## Participation and new production organisations

The Revolutionary Government, through the intermediary of the National System of Social Mobilisation (SINAMOS),<sup>4</sup> introduced innovations in both these fields by establishing industrial communities, undertakings managed by their own employees and socially owned undertakings, as well as by strengthening the so-called "production and work" co-operatives.

### The industrial communities

In the non-agricultural sector participation machinery was set up by law and assigned objectives that can be summarised as the reform of the capitalist undertaking so as to permit growing collective participation by

the employees in its ownership, management and profits; it was envisaged that they might control up to 50 per cent of the capital.

L. Pásara and J. Santistevan<sup>5</sup> have already described the legal provisions relating to industrial communities and the problems they faced during the first period. During the second period, however, this legislation was amended<sup>6</sup> with a view to reducing its scope and modifying the original participation machinery. Thus the definition of small and medium-sized private enterprises which could not form themselves into industrial communities was expanded to include almost 60 per cent of the undertakings in the "reformed" private sector.

The trade unions were hardly enthusiastic about the establishment of the industrial communities, perhaps because they feared the emergence of a rival power in the undertaking. For their part, the private employers, either individually or through the powerful National Association of Industries (SNI), vigorously opposed these reforms and called upon the Government on several occasions to amend the provisions they considered most harmful to their interests.<sup>7</sup>

The Government's efforts to promote the establishment and development of industrial communities were also hampered by a number of internal differences.

For all these reasons, towards the end of the period covered by this article, the relative importance of the industrial communities experiment declined, as did the potential for reform envisaged in the texts which established them and in the minds of those who conceived them.

#### Undertakings managed by their own employees<sup>8</sup>

During the first period a considerable number of undertakings went bankrupt for a variety of reasons, not excluding fraudulent ones inspired by the owner's fear of seeing his authority transferred to an industrial community. The majority of firms going bankrupt were medium-sized ones producing perishable consumer goods, were subject to the terms of the General Industries Act and had relatively high labour costs. These costs had risen following the setting up of the communities since, in addition to sharing in the profits, the workers had access to more information and were powerful enough to enforce compliance with the labour and social security legislation.

Two special features of the Peruvian experience were the determination with which the workers held out during the most difficult moments of the crisis caused by the employers' abandonment of their undertakings, and their insistence on the application of the employment security legislation promulgated by the Government shortly after it came to power. Thanks, among other things, to their occupation of factories and the support they enjoyed from the state-controlled information media, the

workers seemed well placed to continue their desperate struggle almost indefinitely. It was at this moment that, within the framework of SINAMOS, the idea originated of creating a system of self-management based on these undertakings. In 1973 a legislative decree granted the communities in these undertakings the right to manage them, suspended bankruptcy proceedings for 90 days and required the official receiver, after consulting the communities, to submit plans to the responsible Ministry showing how the undertakings could continue in business. The courts generally approved the plans provided that the undertaking's debts to its workers represented at least 60 per cent of the amounts owing. Subsequently, another legislative decree laid down that all these undertakings should be transformed into production and work co-operatives.

The Committee of Undertakings Managed by Their Own Employees (CEAT) was formally established during the second period. The long process establishing and consolidating self-management undertakings was characterised by a strong feeling of solidarity among the workers and by their daily experience of sharing the meagre resources deriving from outside temporary work and whatever provisions they were able to collect.

### **Socially owned undertakings**

Socially owned undertakings—and the self-management sector based upon them—had already been the subject of widespread public debate; however, it was not until the end of the first period that they began to be established and by that time the general situation had markedly deteriorated: the Peruvian economy was feeling the shock waves of the international economic crisis while the strains between the various tendencies within the Government were intensifying and there was growing pressure from various sections of the population in support of such demands as employment security and an increase in real wages.

In the Peruvian context socially owned undertakings should not be confused with state or mixed undertakings. Although the former were "composed exclusively of workers", the capital was not owned by the workers in the undertaking concerned, either individually or collectively, as in the case of a co-operative, but by "the entire body of persons working in all the undertakings making up the sector".

The workers were responsible for the management of their own undertaking and the disposal of its profits, except for a 10 per cent share earmarked for a "social accumulation fund" administered by the National Social Ownership Fund (FONAPS). The FONAPS provided a "temporary allocation", which was supposed to be repaid at a later date, for the purchase of capital equipment and financing of the business's initial operations.

The undertakings were to be guided by the following principles: social accumulation of the profits; full participation in management, ownership and profits; continuous training; and a democratic system of management with the general meeting, the highest authority, electing the members of the management committee, which in turn was responsible for implementing the policy decided upon by the general meeting and for making appointments to managerial posts.

Here too the results fell far short of expectations. The self-management sector was only constituted after much delay due to a variety of factors: administrative difficulties, opposition from managers in other sectors, the lack of qualified executives and the absence of criteria for the allocation of resources to the various socially owned undertakings. Meanwhile the situation had changed and, contrary to the initial principle that such undertakings should be "autonomous", the State assumed a dominant role in the new sector. Nor was the participation of the workers in management as full as had been envisaged. The attitudes varied between two extremes: authoritarianism on the part of the managers and worker-directors, on the one hand, and an overfondness on the part of the workers for holding meetings ("meeting mania"), on the other, which complicated the decision-making process and disrupted production. The workers found it difficult to show initiative and creativity at the shopfloor level, where a Taylorist conception of the organisation and division of work still prevailed.

### Production and work co-operatives

By 1980 there were 158 production and work co-operatives as against only 26 in 1968. The number of agricultural co-operatives also increased from around 500 in 1964 to 1,200 in 1968 thanks to the important role assigned to them in all the Peruvian agrarian reforms.<sup>9</sup> In 1976, as already mentioned, a legislative decree required that all undertakings managed by the workers should be transformed into production and work co-operatives, which explains why at the end of the second period 35 per cent of such co-operatives consisted of undertakings that had previously gone bankrupt. It also accounts for the difficulties they encountered in obtaining loans to modernise their plant, construct premises and procure the working capital needed to meet unforeseen increases in demand. The co-operatives could hire casual workers at lower rates of pay than the members, and the isolationist type of behaviour known in Peru as "enterprise egoism" was more common there than in the other undertakings studied.

At the time the project was implemented Peru had a total of 244 "urban self-management undertakings", employing 27,377 permanent workers and members, distributed as follows:

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Type of undertaking	Number	Workers and members
Socially owned undertakings	42	6 277
Undertakings managed by their employees	65	9 000
Production and work co-operatives	137	12 100

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Source: Víctor Revilla and René Rodríguez Heredia: *Perú: experiencias autogestionarias urbanas* (Lima, INDA, 1979), paper presented at the Meeting of Private Institutions for the Promotion of Urban Self-Management Experiments, Lima, 28 May - 1 June 1979.

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## The INDA and the work reorganisation project

When the structural reforms of the first period were already under way—but before it had been decided to create a sector of socially owned undertakings—a working party was set up within the Ministry of Industry and Tourism to carry out an in-depth study of the changes introduced in the “reformed” private sector. This led<sup>10</sup> to the elaboration of the first version of the project to be discussed below. However, it was only after the establishment in August 1977 of the National Institute of Research and Action for Development (INDA) that it was to come into effect, the Inter-American Foundation of the United States Congress having agreed to finance the operation.

The aim of the INDA was to promote and support—through studies, research, technical and financial assistance, training and publications—the various production units of the “social sector” with a view to increasing workers’ participation in decision-making, raising productivity, improving working conditions and environment and making work more human by reorganising it so as to avoid excessive fragmentation of tasks.

These objectives were inspired by the publications of the Work Research Institute of the University of Oslo on socio-technical systems and new forms of work organisation; by the research of the Tavistock Institute in London on the psychosociology of organisations and its experiments on the efficiency of non-Taylorist forms of work organisation; by Yugoslav self-management experiments, especially in the “basic organisations of associated labour”, and other innovations introduced in that country in the 1970s; by the ILO Director-General’s report entitled *Making work more human*, as regards the part dealing with the organisation of work; and by the ILO’s International Programme for the Improvement of Working Conditions and Environment (PIACT) and more specifically by the recommendations of the interdisciplinary PIACT mission that visited Peru in 1977, which proposed “encouraging practical experiments in the improvement of working conditions and environment in undertakings

selected for that purpose". The INDA's main idea was to show, on the basis of experiments carried out in undertakings in the self-management sector, that the various goals it was pursuing simultaneously were in fact compatible.

Experience showed, first of all, that the scope and power of the participation organs set up within the privately owned industrial undertakings had diminished, and secondly that in the "associative" undertakings it had not been sufficient for the ownership of capital to change hands to ensure full participation, improve working conditions and environment and democratise the style of management. To effect a more profound change it was necessary to transform the work process itself and, following the thinking of Eric Trist, to "skip a century" and eschew industrialisation based on authoritarian management, fragmentation of tasks and rigid and bureaucratic forms of organisation; even in the most industrialised countries, all these things were beginning to be called into question.

The underlying assumption was that if the workers could, at the shopfloor level, express their creativity, use their skills to the full and participate in decision-making, the role of their representatives on the various management bodies would be strengthened and made more effective, and that in this way it would at last be possible to raise labour productivity and hence wages in the undertakings of the associative or self-management type. The aim of the project was therefore to experiment with alternative forms of work organisation (job enrichment, job rotation, replacement of assembly lines with semi-autonomous work groups, etc.).

The methods used proved difficult to apply as well as costly because of their experimental nature, the fact that they were the first of their kind to be tried out in Peru, and lack of knowledge about the results of similar experiments in industrialised countries. Since the project was to be carried out in the undertakings themselves, it was necessary to obtain the approval not only of the directors but also of the entire workforce, who were at the same time individual or collective owners of the capital. As soon as the Inter-American Foundation promised its financial support for the project a team was set up to implement it composed of specialists in various fields: economists, sociologists, psychologists, personnel managers and experts in teaching techniques, audio-visual methods and occupational safety and health. The project lasted two years but it is possible to distinguish a number of separate stages.

### The first stage

For a number of reasons the undertakings which were to take part in the experiment could not be selected in the manner originally intended: thus although the project covered various forms of associative enterprises it

was not possible to include undertakings belonging to the "reformed" private sector, i.e. industrial communities; the sample was not statistically representative; and what really decided the choice of undertakings was their agreement to participate in the experiment. In the end four undertakings were selected: in Lima, a limited liability company manufacturing wooden furniture, managed by its employees, and a communal undertaking producing building materials; in Trujillo, a socially owned undertaking manufacturing spare parts and assembling light motor cycles; and finally, in Huancayo, another socially owned undertaking producing agricultural machinery.

The operating procedure adopted for the project was to comprise the following successive steps: (1) *Motivation* of the entire workforce through an information and educational campaign designed to obtain their approval for the project at a general meeting, following which the INDA and the undertaking would sign an agreement setting out their respective obligations. (2) *Preparation of a socio-technical plan*: an ad hoc committee composed of representatives of various categories of personnel within the undertaking and supported by the project team was to draw up an over-all plan which would later be discussed in a general meeting before being cast in its final shape. (3) *Preparation of an organisational plan*: specialised committees would then draw up a general plan and sectoral plans designed to solve the problems that had been identified, with democratic management and workers' participation as both the means and the final goal. (4) *Implementation* of the plans with the participation of the workers actually affected by the problems. This could take various forms: information, training, fuller integration into the undertaking, elimination of occupational hazards, job analysis, preparation of organisational and task manuals, improvement of working conditions and environment, and the creation of a new administrative structure which would promote effective and growing participation in decision-making. (5) *Evaluation*: this was to be carried out on a continuous basis to enable necessary adjustments and modifications to be made.

However, nine months after the launching of the project this operating procedure had to be revised since it was taking too long to get off the ground and was proving too costly, especially in the two undertakings located outside Lima to which the entire team had to move for several weeks at a time. It was mainly for these reasons—but also for others internal to the INDA itself—that the team was reorganised and its working methods changed, since it had not been possible to apply them fully in any of the undertakings selected.

### The second stage

Work was not restarted immediately since the new team leader had to be given time to familiarise himself with the project and fit into a team that



had already been set up. The following changes in working methods were introduced: (1) The team would no longer concentrate all its efforts on one undertaking at a time. Each member would become a "resident" in one of the undertakings, where he would spend the major part of his working time, returning periodically to the INDA to write reports and exchange information with his colleagues. The project would therefore be launched simultaneously in all undertakings. (2) The "residents" would operate as generalists rather than specialists. (3) To assist him in overcoming possible opposition, each team member would be able to draw on the experience acquired in the other undertakings and could also make use of the services offered by the various sections of the INDA, including its financial backing. It was hoped in this way to progress from co-operation in solving specific problems to the implementation of the project itself. (4) The experiment was to be concentrated geographically in Lima. (5) The time devoted to each phase of the operating procedure was modified; this meant reducing the time allowed for the preparation of the socio-technical plan, which was also to be made less academic in conception.

The new formula in its turn revealed certain limitations. The "residents" were isolated in the undertakings and knew too little about them to understand their over-all operation. In fact, each of them had to attach himself to a specific unit, which frequently was not directly involved in the production process. The result of this was to reduce the "residents'" range of contacts and cause them to be regarded as "technical advisers" even though they had neither the status nor the qualifications to act in such a capacity. They were requested by the worker-directors to intercede with the INDA to help solve the many problems connected with the technical side of production, including financial problems. The improvement of working conditions and environment did not figure prominently among these requests.

Towards the middle of 1979, after the results of the new procedure had been evaluated, an effort was made to strengthen the internal cohesiveness of the project team, to promote a more systematic exchange of information, experience and professional services between its members and to establish some rotation of their responsibilities. A seminar on new forms of work organisation introduced in industrialised countries afforded an opportunity for reconsidering the best approach to achieving the project's aims. These activities led to the development of a new system designed to ensure greater co-ordination among all the programmes carried out by the various sections of the INDA within one and the same undertaking.

Six undertakings participated in the project up to the end of the second stage, but before the third stage had even begun their number was reduced as a result of various exogenous factors: internal conflicts in a co-operative whose new directors decided to suspend the implementation of the project; an unsettled dispute in a communal undertaking which disrupted production and made any form of intervention pointless; an attempt by

another institution pursuing much the same aims as the INDA to supplant the latter in an undertaking run by its workers; and termination of the contract of the "resident" in another worker-managed undertaking.

### The third stage

Despite the fact that the size of the team had been reduced, the experiment continued in the remaining undertakings with the establishment of committees responsible for improving working conditions and environment, analysis of working conditions using the method developed by the French Laboratory of Labour Economics and Sociology (LEST-CNRS),<sup>11</sup> training activities, and assistance in solving specific problems of a mainly technical and financial nature.

### A project balance sheet

Almost all these undertakings which had gone bankrupt when they belonged to private entrepreneurs were now managed by the workers and had survived only thanks to their determination. Much of the existing plant was obsolescent and inefficiently used, the raw materials employed were often unsuitable and quality control was lacking. The productivity of the labour force was inferior to that in private undertakings of the same size manufacturing the same products, and the range of articles produced had contracted. The former managers had abandoned the undertakings at a time of crisis and it was difficult to replace them, so there was no alternative but to entrust the most qualified workers with management responsibilities. Formal wage scales were practically non-existent, labour discipline had broken down and with the generalisation of "double-jobbing" the majority of the workers were putting in long hours. They continued to work in "their" undertaking out of solidarity and also to preserve the plant and other assets—which they now owned—but at the same time took on second jobs to supplement their incomes. The undertakings suffered from chronic liquidity problems, finding it difficult to raise loans because of their inability to provide collateral and the reluctance of the financial institutions to risk incurring bad debts. On the domestic market, already limited in size, they were placed at a disadvantage by their declining business prestige and doubts about the quality of their products. Nevertheless, sales continued since the "viable" private undertakings preferred to export rather than satisfy home demand and even when they did turn to the domestic market they aimed at the middle and high income brackets whereas the undertakings involved in the project geared their output to the middle and low income categories and could fix artificially low prices since they were able to pay wages even below the legal minimum.

Under these circumstances the initial objectives of the project inevitably had to be revised since it was obvious that working conditions and environment could not be improved or new forms of organisation introduced if the undertakings concerned went out of business. This is why the team merged its activity with that of other sections of the INDA and other self-management support bodies in order to help these undertakings win their tenacious and desperate struggle for survival.

The legal advisers suggested the juridical and statutory forms which the undertakings should adopt and represented them in the courts. The Solidarity Fund for Self-Management Investment, an offshoot of the INDA, granted short-term working capital loans at very low interest rates, and at much shorter notice than is customary, in return for token guarantees. This partly explains why some undertakings survived and gradually recovered. Another—indirect—consequence was that the worker-directors were able to familiarise themselves with the mechanisms governing the financial market.

The Technical Promotion and Services Section engaged, at its own expense, a number of specialists to make complete diagnoses of the undertakings, prepare marketing studies, formulate sales policies and reply to invitations to tender.

As regards the improvement of working conditions and environment, the project may be considered a success. The positive achievements included the following:

1. A study of business organisation and of various individual jobs carried out in collaboration with the National Productivity Research Centre (CENIP) made it possible to devise forms of work organisation better suited to the realities of the situation and to provide a more objective basis for wage policy.

2. Participation machinery was established or strengthened with a view to reducing the risks of "meeting mania", providing channels for workers' initiatives and demands, and ensuring their representation in the management bodies.

3. Modest resources were allocated to training committees which drew up an annual plan based on a survey of needs. Their activities included organising film shows followed by discussions, conferences and courses, preparing and discussing photographic documentaries dealing with work methods, procuring grants to send trainees on courses organised by the National Service for Apprenticeship and Industrial Employment (SENATI) or by the CENIP, launching basic workers' education programmes and fitting out classrooms.

4. In order to encourage the workers to play a fuller part in the general running of the undertaking and to take an interest in the implementation of the project, quite successful use was made of wall panels and works bulletins; workers' education manuals were also prepared and

distributed—one, for example, dealt with how to read and interpret balance sheets.

5. As regards occupational safety and health, a full review of the situation was made in three undertakings, followed up by in-plant training activities during working hours, wide dissemination of readily comprehensible written materials, accident and earthquake simulation exercises and first-aid training. In all the undertakings specialised committees were established to draw up rules and train safety and health officers, as a result of which there was a noticeable improvement in the tidiness and cleanliness of the factories, in warnings concerning the most hazardous work areas and activities and in the general awareness of working conditions and occupational hazards. One undertaking set up an occupational safety and health service manned by a permanent staff, which improved the lighting and ventilation systems and provided every worker with suitable work clothing and personal protective equipment. It was possible to ensure the continuity of these activities thanks to an agreement signed between the INDA and the Inter-American Centre for Labour Administration (a UNDP/ILO project) whereby the latter undertook to provide technical assistance through its experts.

6. In one undertaking the length of the working day was modified so as to combat the widespread practice of double-jobbing. The daily hours were increased from six to eight in a co-operative, which made it possible to increase the daily wage. These two extra hours were split between work and training. Later, however, the remuneration system was changed from time rates to piece rates. This brought about a rapid rise in hourly productivity (almost 20 per cent) without any noticeable drop in quality; the workers chose on the whole to shorten the working day rather than go on working once they had achieved the production “quota” corresponding to their previous time-rate earnings.

7. Several undertakings made use of the LEST-CNRS method to analyse working conditions; this gave the specialists collaborating in the project experience in applying it, and in each undertaking they discussed the results with the workers and suggested preventive measures and ergonomic reforms. Indirectly, this also proved of value to a nucleus of social scientists within the Working Group on Working Conditions and Environment set up by the Latin American Council for Social Sciences (CLASCO).

8. Although the experiments with new forms of work organisation were not carried out on the scale expected when the project was launched, success was recorded in promoting job rotation and job enrichment and enlargement as well as in resisting any change in the production process tending to increase job fragmentation. Following the wave of bankruptcies, the “semi-autonomous” work groups had begun to function—even though

in a rudimentary and spontaneous way—from the start of the self-management experiment.

## **An attempt at evaluation**

Now that the time envisaged for the implementation of the project has elapsed, and we have discussed its progress and content, the main question that arises is: why did the investment of efforts and resources on such a scale not produce more substantial results?<sup>12</sup>

### **The nature of the project**

The first point to be borne in mind is that the project was of a new and experimental kind and was launched without any serious study having been made of experiments along the same lines carried out in other semi-industrialised countries. It would be unrealistic to expect an exercise of such short duration to produce more impressive results: both the team and the undertakings needed more time in which to “mature” and understand all its implications; possibly no attempt should have been made to work under pressure with a view to speeding up the taking and implementation of decisions. The project’s objectives were undoubtedly too ambitious for a situation that turned out to be more complex and contentious than had been realised at the outset.

### **Access to the undertakings**

The INDA was a new institution composed of young graduates who had begun their careers in the public administration without much experience of private enterprise. The assistance given by the Inter-American Foundation, even more than the unusual and ambitious objectives of the project, aroused the suspicion and mistrust of the managers and workers of the undertakings involved. When the crisis broke and the previous owners abandoned their businesses, they were joined by the managerial and white-collar staff who had held positions of trust under them. This is why the team had difficulty in securing recognition of its “legitimacy” and in gaining acceptance of its intent to study the structures of the undertakings as a preliminary to transforming them. In some quarters it was even imagined that the team members were seeking to purchase these businesses, knowing that they were in trouble.

For the worker-directors the main problem was to ensure the survival of the undertaking, job security and the regular payment of wages. The improvement of working conditions and environment seemed less urgent to them, even though the employees, for their part, may have held a different opinion.

The participation exercise did not really concern the rank and file directly. The directors, most of whom were former industrial community members or trade union leaders, were more accustomed to dealing with the "grass roots" through general meetings than by promoting the establishment of working parties actually composed of shopfloor workers; this was the method which the project recommended as being most suitable for diagnosing and improving working conditions, but there was a danger of it being considered rather impractical and difficult to control.

As already mentioned, the posts formerly occupied by professional managers were temporarily filled by skilled workers whose wages were not, however, raised as a result. The appointment of new managers posed a problem: they had to be paid higher salaries, equal to those on the open market, if managers with the necessary qualifications and experience were to be attracted. When the market situation improved, the general meetings approved the candidates proposed by the directors but decided that the salaries of the executives hired should be made up of a fixed monthly amount supplemented by a percentage of the business directly generated by them. Their recruitment facilitated the dialogue with the INDA team but, at the same time, reduced its freedom of action within the undertakings.

During the most difficult moments of the economic crisis the existence and activity of the INDA acted as a lifebelt for certain undertakings; however, once the low point of the recession had been passed and they could take a brighter view of their prospects of survival and recovery, these same undertakings began to turn to the market mechanisms in search of more fundamental solutions. Through its training and promotional activity the INDA had already strengthened the executives' confidence in their own abilities. The danger from then on was that the undertakings would revert totally to the logic of production, marketing and capital accumulation characteristic of a market economy and that a certain "enterprise egoism" would be reborn.

### The project team

For the reasons mentioned above, the members of the team had neither the experience nor the training required for a task of this type; in fact there was no one in Peru who did. There was no time or money to fill this gap and the members of the team were trained "on the job", as it were, while the project was being carried out. Hence it was difficult for them to master all the highly complex technical problems relating to production and this naturally limited their possibilities of intervention to combat the negative effects of the work process—and particularly of the technologies used—on working conditions and environment.

The changes in the composition of the team—the appointment of a new leader and the sudden increase or reduction in the number of its members—disrupted the smooth implementation of the project. It is

important to ensure that, before starting work, a team of this sort is homogeneous and complementary in respect of qualifications, is properly motivated and has a genuine interest in the successful outcome of the experiment.

Following the transition from the first to the second stage, the "residents" found themselves isolated in the undertakings. Communications with their counterpart, a worker-director, were easy and regular but this was not the case between the latter and his colleagues and the shopfloor workers as regards matters concerning the project. This only served to increase the isolation of the "resident" and greatly reduced his chances of having his proposals accepted and applied right down the line. The project thus became identified with a single worker-director and its fate was bound up with his.

It should also be pointed out that the INDA often anticipated the requests of the undertakings, offering its technical co-operation and assistance even before the need was generally felt or expressed. Furthermore, the INDA's technical competence and resources were frequently overestimated and this gave rise to disappointment and disputes when its offers were eventually accepted.

Finally, during the first two stages of the project's implementation the various activities carried on by the INDA within a particular undertaking were not sufficiently co-ordinated. It was only towards the end of the second stage that the reform proposals aroused much interest with the rediscovery of the considerable influence that the technical aspects of production have on working conditions and environment.

### The context of the experiment

While the structural changes mentioned at the beginning of this article created favourable conditions for the planning, financing and not-unsuccessful launching of the project, in evaluating it account has to be taken of two independent macro-social variables.

Since 1975 the Peruvian economy had been going through a serious crisis which manifested itself in an unfavourable balance of payments, a considerable increase in the rates of inflation, unemployment and under-employment, a marked reduction in the growth of GDP and real wages, and difficulties in respect of capital accumulation. The crisis had its severest effect on the urban self-management sector, whose output was almost entirely directed to meeting the basic needs of the poorest sections of the community. Successive stabilisation policies only produced results—incomplete ones at that—after a lengthy time lag and led in the meantime to an increase in social costs and an exacerbation of labour disputes. In this context it is not difficult to understand that the priority objectives of the "associative" sector undertakings were to survive as production units and to maintain the size of their workforce—which

frequently meant swallowing some bitter pills such as suspending the indexation of wages or even postponing their payment. Only when these two vital aims were secured could there be any question of spending time and money on improving working conditions and environment, increasing workers' participation or democratising management.

The second variable was of a political nature. Although for ten years or so it had been difficult for political parties to give full expression to their convictions, the structural reforms carried out by the GRFA, the newly constituted labour organisations and the relative freedom of action granted to the various "protest" movements created a climate in which small but active political groups came into being and sought to increase their support by recruiting sympathisers in the self-management sector. In consequence the associative undertakings coming under their influence received offers of technical co-operation from numerous recently created self-management support bodies and institutions which were connected in some way with the said groups or parties.

In these circumstances the presence of a new, independent institution, endowed with resources supplied by the Inter-American Foundation and proposing to carry out the project we have been discussing, aroused suspicion, mistrust and opposition within the undertakings.

Finally, while the project succeeded in mobilising the shopfloor workers to identify the problems arising out of the production process and to propose solutions involving greater participation and more democratic management, it has to be recognised that these remedies too could weaken the internal power structure of the undertakings.

## Concluding remarks

In the industrialised countries, whatever their social and political system, moves to promote workers' participation and the democratisation of management have been initiated either by the undertakings themselves or by the central authorities, and it is these that have set up the machinery for planning, implementing and evaluating the operation. The Peruvian project, by contrast, originated outside the undertakings and did not enjoy official support. This explains, on the one hand, its lack of adequate financing and, on the other, the fact that the undertakings—not having asked to take part in the project—limited themselves to authorising its implementation and did not really feel committed to ensuring its success.

The paradoxical thing about the Peruvian experiment is this: it was the self-management sector, mainly consisting of smaller undertakings, that was expected to introduce the reforms; these efforts were supported by the INDA—a private institution—but were not required of the more prosperous large and medium-sized undertakings that were often linked with foreign companies. Yet in the industrialised countries it is generally the larger enterprises that conduct experiments of this sort. What was



attempted in Peru constituted, in fact, a formidable challenge directed not only at the governmental authorities but also at the executives of the large undertakings of the "reformed" sector and at the workers' organisations whose task it is to promote participation.

This prompts us to ask the old but fundamental question as to the compatibility of participation and the improvement of working conditions with increased productivity. In other words, is it really possible to make industrial work more human? The results of the Peruvian experiment—which are generally positive even though not coming up to the original expectations—are not in themselves sufficient to permit an affirmative answer to this question but they do provide food for thought and justify further experimentation in this field.

## Notes

<sup>1</sup> The content of this article was discussed at a series of working sessions with Mr. René Rodríguez Heredia, President of the Peruvian National Institute of Research and Action for Development (INDA), who placed his personal archives at the disposal of the author, helped to arrange interviews with workers and offered his own assessment of the project's progress. Without his invaluable assistance it would have been impossible to complete this study successfully. The on-the-spot evaluation was carried out in two stages (in 1979 and 1980) with the collaboration of María Teresa Urquiza, Jorge García Pacheco, César Granda, Fernando Ponce and Marta Falcón. Responsibility for the final version of the article rests solely with the author.

<sup>2</sup> Legislative Decree No. 18350, to promulgate the General Industries Act, dated 27 July 1970, and Legislative Decree No. 18384, respecting the "industrial community", dated 1 September 1970; see *Legislative Series* (Geneva, ILO), 1970—Per. 2 A and B.

<sup>3</sup> For an interesting view on the public sector of the economy see E. V. K. Fitzgerald: *The State and economic development of Peru since 1968* (Cambridge, University Press, 1976).

<sup>4</sup> For further information on this controversial institution see Carlos Franco: *Perú, participación popular* (Lima, Ediciones CEDEP, 1979); and Carlos Delgado: "SINAMOS, participación popular en la revolución peruana", in *Revista Participación* (Lima), Feb. 1973.

<sup>5</sup> L. Pásara and J. Santistevan: "'Industrial communities' and trade unions in Peru: a preliminary analysis", in *International Labour Review*, Aug.-Sep. 1973.

<sup>6</sup> Legislative Decree No. 21789, dated 1 February 1977, Presidential Decree No. 002-77-IT and Legislative Decree No. 22229, dated 11 July 1978; see *Legislative Series*, 1977—Per. 1 and 1978—Per. 2.

<sup>7</sup> On the results of this dispute see Franco, op. cit.; and René Rodríguez Heredia: "Comunidad industrial, revolución y reforma en la empresa en el Perú", in Ernest Kerbusch (ed.): *Cambios estructurales en el Perú* (Lima, Fundación F. Ebert and ILDIS, 1976).

<sup>8</sup> See Walter Tesch: *Las empresas administradas por los trabajadores en el sector industrial* (Lima, PUC, Programa Académico de Ciencias Sociales, Ph.D. thesis, 1976); and José Burneo: *La transferencia de empresas quebradas a la comunidad laboral* (Lima, DESCO, 1975).

<sup>9</sup> See INDA: *Producción autogestionaria. Directorio de empresas autogestionarias urbano-industriales* (Lima, 1980).

<sup>10</sup> Following a visit in 1973 by Eric Trist, the well known author of works on socio-technical systems and new forms of work organisation.

<sup>11</sup> A method which makes it possible to analyse and evaluate the working conditions of manual workers, particularly as regards heat, noise, lighting, vibrations, physical effort or load, mental stress, psycho-sociological aspects and working time. For a detailed description see F. Guélaud, M. N. Beauchesne, J. Gautrat and G. Roustang: *Pour une analyse des conditions du travail ouvrier dans l'entreprise, recherche du Laboratoire d'économie et de sociologie du travail, CNRS, Aix-en-Provence* (Paris, Armand Colin, 3rd ed., 1980).

<sup>12</sup> This same question was asked, in respect of similar experiments carried out in their own countries, by the authors of *New forms of work organisation* (Geneva, ILO, 1979). For an account of the original conception of the project see René Rodríguez Heredia: *La democracia industrial. El modelo escandinavo* (Lima, ESAN, 1974).

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