

Performance Evaluation System for Memoranda of Understanding

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Following the recommendation of the Arjun Sengupta Committee, the government of India decided to adopt a system of Memorandum of Understanding (MOU) in 1986. These MOUs were supposed to outline the mutual obligations of the government and public enterprises. As of now, eleven public enterprises have signed MOUs with their respective administrative ministries and six more will be added to this list in the next round. It is fair to say, the policy of MOUs is one of the major initiatives of the government towards the public sector in India. Yet, there has been a certain degree of dissatisfaction, both within and outside the government, over the functioning of the MOU system as it has prevailed over the last two years. It was, therefore, decided that a thorough review and revamping of the system should be undertaken. While performance improvement requires action on several fronts, a proper system to evaluate public enterprise performance is a critical element of any such effort. This paper presents a procedure for fixing performance criteria in MOUs and evaluating the performance of a public enterprise based on these MOUs. The proposed system has been derived after examining the international experience in this regard. According to the available information, the proposed system appears to be the most successful. After discussing the conceptual aspects of a 'desirable' performance evaluation system, the paper examines the MOU of ONGC for illustrating the difference between the existing approach and the one proposed in this paper.

PURPOSE OF THE PERFORMANCE EVALUATION SYSTEM

THE government of India has decided to improve the working of its public enterprises. To achieve this goal, the Memorandum of Understanding (MOU) between the government and public enterprises has been chosen as, the appropriate instrument. Essentially, it is a contract which outlines the mutual obligations of the two parties. Each of these MOUs contains, among other things, some sort of a performance evaluation system. The purpose of this article is to focus only on this aspect of MOUs.¹

It is worth noting that a performance evaluation system is neither the most important element of a performance improvement exercise nor a sufficient one. In fact, it is widely recognised in the literature that a public enterprise performance evaluation system is only one element of a larger signalling system which guides managers to make decisions in the national interest and rewards them for doing so. The other two equally essential elements of a complete system for performance improvement are a performance information system and a performance incentive system. In common sense terms, not only should the government know what are performance criteria, it must also be able to get timely and relevant information on these criteria. Further, to ensure that the performance improvement exercise by the government is taken seriously, it must have a system that links performance of public enterprise managers in terms of these criteria to rewards and punishment.

A discussion on a performance evaluation system can be, in turn, divided into two distinct categories. One dealing with performance criteria and the other with institutional arrangements to carry out the performance evaluation exercise. In what follows our focus will be on the former. We will be

concerned more with how to evaluate rather than who should evaluate. The latter question has already been decided in favour of a committee headed by the cabinet secretary, which in turn will be serviced by BPE.²

DESCRIPTION OF THE SYSTEM

After considerable debate and discussion, a consensus seems to have emerged that essentially there are four steps involved in creating an effective performance evaluation system.¹ Each step is described below with the help of Tables 1 and 2 in Appendix I. Steps 1 through 3 should be completed at the beginning of the year and step 4 should be initiated at the end of the year. It is expected that the current MOU exercise will embody these steps: What do these steps involve and what improvement do they represent over previous two rounds of MOUs?

STEP 1: CRITERIA SELECTION

The first step in designing an effective performance evaluation system consists of selecting a set of performance criteria which reflect various socially important dimensions of public enterprise behaviour. In doing so, the following principles must be kept in mind:

(a) The criteria must be 'fair' to the manager. That is, these criteria must evaluate the manager only on those items which are within his control. The classic example of this is a situation where a public enterprise manager faces a regime of administered prices. Since the prices are beyond the manager's control, 'fairness' to the manager would require adjusting his performance to reflect this constraint. One possible way of dealing with this is to concentrate on his performance at constant prices rather than at current prices. This point is often highlighted by making a distinction between 'enterprise

performance' and the 'management's performance'. The latter can be arrived at by adjusting Enterprise performance' for all factors over which the enterprise management has no control.

(b) The criteria selected should not only be 'fair' to the management of public enterprises but also 'fair' to the country. Assume, for example, that a management of a public enterprise has full control over capacity utilisation. Hence, selection of capacity utilisation would be considered a 'fair' criterion for evaluating the management's performance. However, if the management pushes up the capacity utilisation rate by neglecting the minimum down time required for proper maintenance, then this criterion cannot be considered 'fair' to the nation. Essentially, the manager makes himself look good at the cost of future generations of managers who are likely to be stuck with the dilapidated plant and equipment.

(c) Any criterion that is finally used for performance evaluation should be negotiated and not arbitrarily imposed on the enterprise. Otherwise, while public enterprise managers will appear to accept the criteria on the face of it, they will do their best to oppose the whole process covertly.

It is obvious that there are likely to be some honest differences of opinion regarding such things as what is 'fair' and what is within the management's control. In these cases an open and honest discussion is likely to enhance the credibility of the system. International experience suggests that these 'discussions' may turn out to be the most beneficial aspects of the MOU exercise [Nellis, 1988]

The criteria selected in this step appear in column 1 (and their units in column 2). These criteria have been divided into four categories:

— Static operational efficiency

- Dynamic effects
- Project implementation
- Other indicators.

The static operational efficiency indicators try to measure how much a given stock of assets are being used in a given time period. Thus they capture the costs and benefits associated with the operation of an enterprise in a given time period. Public profitability or gross margin could be used for this purpose. The former is defined as:

Output + (intermediate input + wages + rental expenses + opportunity cost of working capital).

However, a public enterprise undertakes many activities which impose a cost in the present but bear fruits in the future. Research and development is an example of this class of activities. Ignoring them in the evaluation process would be unfair to managers who may spend a great deal of effort on them. Hence the need for explicitly giving credit for these activities.

A major source of public enterprise problems can be traced to cost and time overruns in project implementation. Therefore, it is, perhaps, useful to evaluate this aspect of public enterprises operation.

The final category includes non-commercial activities that cannot be quantified. If they are quantifiable, it is easy to account for them directly adjusting the financial statements. It also includes any other relevant indicator which may not have been included in other categories.

The list of criteria included in these four categories will vary from enterprise to enterprise. However, if this list is going to be 'fair' to the management as well as to the country, then it will have to satisfy the following fundamental principle of performance evaluation:

"All benefits and costs associated with the enterprise operation must be counted at least once and at most once."

This simply implies that this list should neither ignore any costs and benefits nor should it count them duplicatively. Unfortunately, most of the MOUs signed thus far violate this fundamental principle of performance evaluation.⁴

Figure 2 gives another useful morphology of various criteria. The terms used are self-explanatory and do not require further explanation.

Before signing an MOU it is worth pondering over each category to see its relevance and decide on indicators to measure it.

Let us examine the ONOC MOU for 1988-89 (see Appendix II) to illustrate what is involved in step 1. The petroleum ministry chose a set of twenty-two criteria to evaluate ONGC's performance. They divided these criteria into two broad categories—physical targets and financial targets.⁵

The issue here is not whether these twenty-two items are desirable or not. Of course, it is desirable to do all of these things. What matters for a performance evaluation system is whether this set of criteria is 'fair' to the

nation and the management of ONGC. Unfortunately, one doesn't have to have very specialised knowledge to see that this set violates the two 'fairness' criteria as well as the fundamental principle of performance evaluation.

To start with, there is enormous amount of duplication in both categories of targets. For example, the cycle speed (metres per rig month) is dependent on the efficiency of 'exploratory drilling' and 'development drilling'. If the performance of the latter two improves, the cycle speed will automatically improve. This is unfair to the nation because the enterprise is being given multiple credit for the same action.⁶

Similarly, the production of 'crude oil' is highly correlated with 'natural gas' as well as 'LPG' and 'NGL'. An effort to increase crude oil production will automatically result in the increase in all others.

The duplication is not limited to the criteria within the physical targets category. It also exists between the physical and financial categories as well. It seems that any increase in the production of crude oil, *ceteris paribus* is automatically accompanied by increases in 'total income', 'net profit' and 'total internal resources generated'. All this is 'fair' to the manager because he is being rewarded for his efforts. However, it is 'unfair' to the nation because the manager is getting multiple credit for his actions. The cost of delivering these benefits is accounted for only twice in 'operating expenses' and 'net profit' whereas the enterprise is given credit for doing so at least six times.

The above analysis deals with what the ONGC MOU says regarding selection of criteria. It is equally important to examine what this MOU fails to say explicitly. The 1988-89 MOU talks about the 'quantity' of wells and their quality. Surely, just digging the targeted number of well could not be considered a 'sufficient' measure of performance in this regard. Otherwise, ONGC could get away with just driving wells to meet the quota without dry additions to potential reserves.

The MOU

2

what is in-

cluded in 'operating expenses'. These definitional confusions can be misused by either party if not properly dealt with. For example, does this category include cost of drilling wells. Otherwise, how is the cost effectiveness of drilling measured.

Another major category of omissions relates to 'social benefits' or 'non-commercial objectives'. It is hard to believe that ONGC does not indulge in many activities which are purely 'social' in nature, such as, housing, schooling and welfare of workers' families and the safety of its workers. Have these already been netted out in setting these targets? If they have not been accounted for, this MOU would also be unfair to ONGC management.

In a market where the fortunes are made and lost with the fluctuation of international prices, it is surprising to see targets set in current prices. A slight change in prices could increase or decrease financial returns and have no relation to managerial efficiency—a classic case of 'unfair' criterion selection.

It is also difficult to comprehend that in a capital intensive industry such as this, repair and maintenance does not play an important part. It is conceivable that the management may push the utilisation of machines beyond this optimum rate to look good in terms of their MOU. However, the nation will have to bear the cost of dilapidated machines in the future. This is clearly 'unfair' to the nation.

Similarly, it is reasonable to presume that in such a talent-intensive, high-tech industry, training plays an important role. Yet training costs money and bears fruit in the long run. If ONGC is not rewarded immediately for such an activity, it might be tempted to minimise their effort in that direction.

One could go on with this discussion for some more time. However, the point seems to have been made and we now attempt to recast the ONGC MOU in light of our discussion as shown in Table 1. We have only taken those criteria that were mentioned in the original MOU and a few more for purely illustrative purposes. This is by no means

FIGURE 1
Determination of Evaluation Criteria

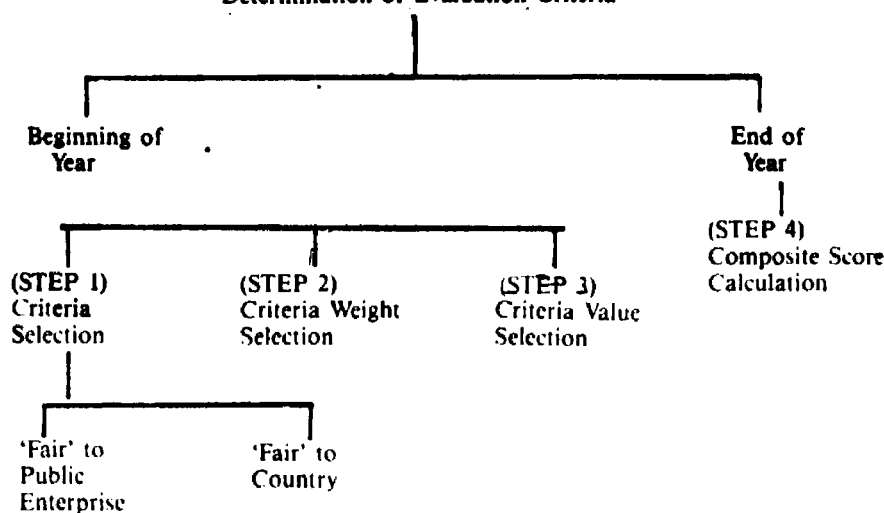
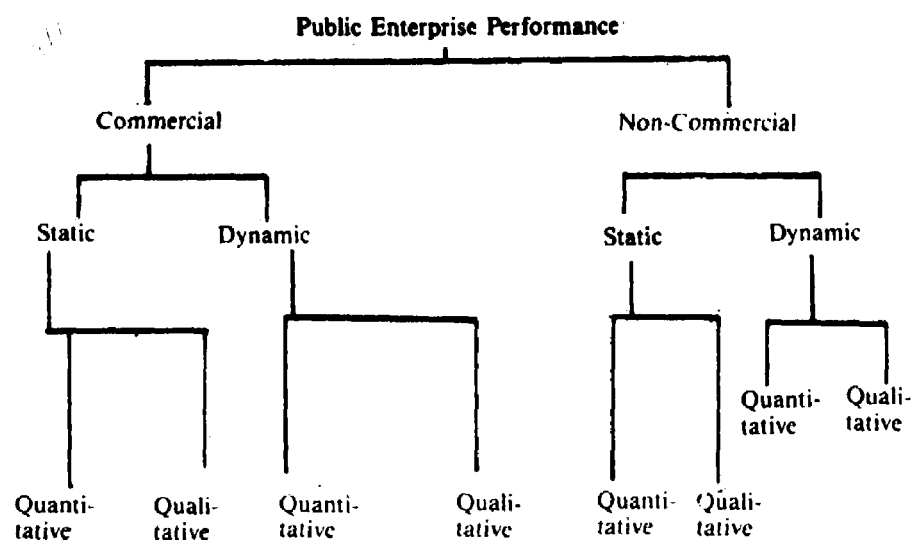


FIGURE 2



even close to the ideal, which can only emerge from negotiations between ONGC and the petroleum ministry.

Notice that we have divided the targets in the ONGC MOU into categories mentioned earlier. We have taken 'total internal resources generated at constant prices' as a measure of static efficiency. The other criteria such as total income, net profit, operating expenses and production are subsumed within this more global indicator and, hence, are not required.

In this context, it is worth noting that all financial targets in the ONGC MOUs are in absolute terms. The limitations of using absolute indicators versus ratios in performance evaluation is well known. Rs 100 crore generated by an investment of Rs 4,000 crore is a very different order of performance from that which generates the same amount from an investment of Rs 40,000 crore. This is why analysts look at 'profitability' (profits/assets) rather than simple 'profit'.

Except for 'plan outlay', we have put all other criteria under the dynamic indicators category.

STEP 2: CRITERION WEIGHT SELECTION

In this step one has to decide, what is the relative importance of each criterion for this particular enterprise? These are listed in column 3 of Table 1 as ratios (totalling 1.00).⁷

There is no scientific methodology for selecting weights for each criterion. It is a normative policy decision. As owners of the public enterprise, the government has the final right to decide on priorities for the enterprise.

Any public enterprise can do a large number of things. However, given the limitations of time and resources at their disposal, managers have to make 'choices'. This is indeed the very essence of management. The purpose of the weights is to help managers make better choices from the society's (owners) point of view.

These weights need not be constant either across enterprises or over time. For example, the government may decide that initial-

ly it wants an enterprise to squeeze out the slack in static operational efficiency and not worry a great deal about corporate planning. Hence, it may assign a weight of 10 to public profitability and 30 to the quality of corporate planning. As the enterprise reaches a higher level of operational efficiency, the time may be right for reorienting the focus towards corporate planning, research and development, etc.

It should be noted that the current batch of MOUs do not have any weights assigned to various criteria. The ONGC MOU is no exception. It is truly remarkable that how such a basic aspect of MOUs was overlooked. Imagine that the government has to evaluate ONGC's performance at the end of the year using the current batch of the MOUs. When all the data is in, say, the government finds that ONGC has achieved 18 targets out of the 22 that are listed. What should they make of it?

The ONGC management will argue that they have achieved 81 per cent of the targets and, hence, have done a great job during the year. And, on the face of it, it will be difficult to disagree with them. However, it is quite possible that the 4 targets they failed to achieve were the really crucial ones from government's point of view.

If the government points out this fact, ONGC will be perfectly within its right to reject that argument. They could argue that if that is the case, the government should have indicated it on the MOU by assigning appropriate weights. Absence of such explicit weights implies that all items have equal weights, to assume or imply anything else would be clearly 'unfair' to the ONGC management.

It is conceivable that the government may concede on the above point and make another argument. It may say that it would have showered kudos on ONGC for achieving 81 per cent of its assigned targets, if the shortfall in the remaining 19 per cent of its targets had not been so 'disastrous'. To this ONGC may justifiably retort, and argue, that in its opinion the respective shortfalls

in 4 out of the 22 indicators in the MOU were at acceptable levels. Since what is 'acceptable' has not been specified in the MOUs, this issue will remain unresolved. The next section (step 3) suggests what ought to be done to avoid this situation.

STEP 3: CRITERION VALUE SELECTION

Once we have chosen the appropriate 'criterion' for evaluating a particular endeavour, then the still more difficult task remains of selecting a particular 'Criterion value'. While the criterion establishes the scale, the criterion value establishes the point on the scale which distinguishes, say a 'bad' from an 'average' from a 'good' performance.

Miles per gallon is an appropriate criterion for all kinds of vehicles. However, 10 miles per gallon may be an excellent performance for a truck but constitute a poor performance for a motor-cycle.

The main function of criterion values, then, is to allow for a plethora of enterprise specific constraints which affect its ability to perform. These criteria values are listed in columns 5 through 9. Column 4 indicates whether a particular criterion is a continuous variable or a discrete one. It is possible to measure public profitability on a continuous scale but difficult to do so for corporate planning.

In selecting these criterion values (targets), the following points may be kept in mind.

(a) This exercise should be carried out through a participative process. Experience suggests that without a participative approach, targets tend to take the form of formal directives which are often overtly accepted and covertly resisted.

(b) These targets should be easy to understand and well defined. It is desirable at this stage to also agree upon definitions of various criteria and methodology for measuring them.

(c) The sources of information which can assist in setting criterion values include:

- (1) The original objectives at the project formulation stage.
- (2) Comparisons with similar firms in the public or private sector.
- (3) Standards achieved by similar undertakings in other selected developed and developing countries.
- (4) Comparisons with the performance of the same firm in the previous years.
- (5) Professional judgment by third parties.
- (6) Professional judgment at the ministry level.
- (7) Professional judgment at the enterprise level.

It is, again, unfortunate that none of the MOUs signed for 1988-89 include a set of criterion values. This creates enormous difficulties in assessing performance. These MOUs mention only one figure for various targets. It is unclear how should one treat a manager who exceeds some of these targets and has a shortfall in others. For example,

let us look at the ONGC MOU once again. The 'production' target for crude oil in 1988-89 is specified as 29.28 million tonnes. Now, suppose at the end of the 1988-89 period, the actual production turns out to be 28 million tonnes. What could (should) one say about ONGC's performance in this area?

Chances are that friends (sympathisers) of ONGC will say it is as good as achieving the target. They might contend that this much variation is 'normal'. Critics, on the other hand, will hit the ceiling. They will argue that this is a national calamity and a reflection of ONGC's monopolistic complacency. In other words, performance evaluation in the absence of 'criteria values' tends to become a highly 'subjective' exercise.

In Table I, we have indicated criterion values for various indicators in the ONGC MOU. Of course, these numbers have been chosen arbitrarily for illustration of the above point. This example shows that once the criterion values have been specified, it is easy to measure the performance of an enterprise with regard to a performance criterion on a scale of 1 to 5. Which, in turn, enables us to sum up the performances with regard to all indicators used in the MOU and arrive at a composite score. More of this in the next section.

While it is not possible to adopt an uniform approach with regard to criteria value specification, the Korean experience in this regard is worth noting.⁸ The first preference for setting up criterion values in Korea is to use the past trend. If possible, they estimate a regression line for the past data. On this basis they calculate the trend value for the given year. Then the ranges (or intervals) for each of the 5 grades are decided in accordance with the probability distribution.

Only when past values are not available or are not relevant for future, the Koreans go for alternative methods for fixing criterion values. They prefer this method over others as it is more objective and least amenable to tampering. It would appear, that for this reason alone, we in India also ought to think about using 'trend' values calculated from regression lines as a starting point for fixing targets.

In general, there are two more issues that need to be addressed in connection with criterion value selection. First, how does one decide what constitutes excellent performance or average performance. One answer is, of course, the Korean approach of tak-

ing the standard deviation from the projected trend values as 'excellent' performance. However, this is too mechanistic and becomes irrelevant when the present is very different from the past. Therefore, one has to realise that it is not advisable to have a simple formula to define what is 'excellent' performance. The experts who are familiar with that enterprise and the industry would (should) know what constitutes excellent performance in a particular context.

Further, people have expressed some concern about the possibility of enterprises deliberately fixing 'soft' targets to make themselves look good. This argument is a non-starter and similar to arguing that since

TABLE 2: PERFORMANCE EVALUATION SYSTEM (AT THE END OF THE YEAR)

Criterion	Units	Weights	Achievement	Criterion Values	
				Raw	Weighted
1 Static operational efficiency					
1.1 Total internal resources generated	Rs. Crore	.40	2,600	1.00	.40
2 Dynamic effects					
(a) Survey					
2.1 Seismic (onland)	SLK	.04	19,800	2.00	.057
2.2 Seismic (contractual)	SLK	.03	17,582	2.00	.06
2.3 Seismic (off shore)	SLK	.04	35,000	2.00	.08
2.4 Gravity magnetic	No of Stn	.03	7,000	2.00	.06
2.5 Geological	Sq kms	.03	9,025	2.00	.06
(b) Exploratory drilling					
2.6 Metreage	Thousands	.05	537.97	2.00	.10
2.7 Number of wells	No	.04	195	1.25	.05
2.8 Rig Years	Years	.04	83.46	2.00	.08
(c) Development drilling					
2.9 Metreage	Thousands	.05	493.78	2.00	.05
2.10 Number of wells	No	.04	300	2.00	.08
2.11 Rig Years	Years	.03	36.26	2.00	.06
(d) Cycle speed					
12.12 On shore	mt/rig-mth	.05	580	3.00	.15
12.13 Off shore	mt/rig-mth	.03	1,093	2.00	.06
3 Project implementation					
3.1 Plan outlay	Rs Crore	.10	2,350	2.00	.20

Total weights: 1.00; Composite Score: 1.547

Appendix I

TABLE 1: PERFORMANCE EVALUATION SYSTEM (AT THE BEGINNING OF THE YEAR)

Criterion	Units	Weights	D/C	Criterion Values				
				(1) Excellent	(2) Good	(3) Fair	(4) Poor	(5) Very Poor
1 Static operational efficiency								
1.1 Total internal resources generated	Rs. Crore	.40	C	2,500	2,250	2,000	1,800	1,650
2 Dynamic effects								
(a) Survey								
2.1 Seismic (onland)	SLK	.04	C	20,000	19,540	19,000	18,500	18,000
2.2 Seismic (contractual)	SLK	.03	C	19,000	17,582	17,000	16,500	16,000
2.3 Seismic (off shore)	SLK	.04	C	38,000	35,000	32,000	29,000	26,000
2.4 Gravity magnetic	No of Stn	.03	C	7,700	7,000	6,500	6,000	5,500
2.5 Geological								
(b) Exploratory drilling	Sq kms	.03	C	10,000	9,025	8,500	8,000	7,900
2.6 Metreage	Thousands	.05	C	600	537.97	500	450	400
2.7 Number of wells	No	.04	C	200	180	160	140	120
2.8 Rig Years	Years	.04	C	100	83.46	75	70	65
(c) Development drilling								
2.9 Metreage	Thousands	.05	C	550	493.78	450	400	350
2.10 Number of wells	No	.04	C	330	300	270	240	200
2.11 Rig years	Years	.03	C	40	36.36	31	28	25
(d) Cycle speed								
12.12 On shore	mt/rig-mth	.05	C	700	616	580	520	490
12.13 Off shore	mt/rig-mth	.03	C	1,300	1,093	1,000	900	800
3 Project implementation								
3.1 Plan outlay	Rs Crore	.10	C	2,600	2,350	2,020	1,910	1,700
4 Non-commercial and other objectives								
4.1 None								

there is occasional cheating in a democratic set up, it is not worth having a democracy.

To take care of this concern BPE has set up an *ad hoc* task force for examining the content and format of MOUs. It consists of independent (non-government) experts from academics as well as the outside world. One would hope that it would be difficult to get by this expert body with grossly understated criterion values.

Finally, some enterprises have expressed their frustration in drawing up a 5-point-scale when their ministry is not in a position to make certain commitments. In this case one has to find practical alternatives rather than let the whole MOU exercise be held to ransom because of a long list of 'ifs' and 'buts'.

Before doing anything at all, one should examine the commitments sought from the ministry. We should make an attempt to separate those items that affect the immediate performance of the enterprise during the year and those cases where the impact on performance will be only in the long run.

Once we have identified those (few) critical areas that will be affected by lack of anatomy or other such problem, we have to

do a bit of 'sensitivity' analysis. Based on such analysis, one should think of indicating, two 5-point-scales for the same criterion. One with no constraints, the other with it.

STEP 4: PERFORMANCE EVALUATION

Once the MOU has been signed and the criteria, value as well as respective weights specified, the next step in the evaluation process comes only at the end of the year. The performance of the enterprise is judged only against the targets negotiated at the beginning of the year. This exercise is summarised in Table 2 (Appendix 1).

The first three columns of this table simply summarise the items to be evaluated, as agreed upon at the beginning of the year. Column '1' gives the various criteria chosen; column '2' the units of measurement; and column '3' the relative weights (totalling '1.00').

The actual performance during the year, measured in the units defined above is given in column '4'.

Column '5' entitled, 'raw item score' converts actual performance during the year to a standard scale of '1' to '5'. When the criterion units are 'Qual 1-5', this figure is identical to that in the 'achievement' column. Otherwise, the achievement is compared with the criterion values in Table 1 to convert, say, a '10 per cent increase' score to a standardised score on a scale of '1' to '5'.

The next column is simply the weight times the raw item score. After summing the individual weighted item scores, we get the composite performance score. This score summarises the overall performance of the enterprise. It can be used to rank public enterprises according to their composite scores. This system, thereby, introduces an element of competition which is usually missing for most public enterprises.

The score of 1.57 in our hypothetical case implies that ONGC's performance was between 'good' and 'excellent'. If we calculated similar scores for SAIL (Steel Authority of India), Air India and BHEL (Bharat Heavy Electricals Limited), we could begin to compare their performance with each other. These enterprises may be very different from each other, yet their composite scores are comparable.

These composite scores compare the ability of the respective managements of these PEs to achieve their commitments, whatever they may be. This composite score is truly a counterpart of 'profits' in the private sector.

This last step is, however, not a mechanical procedure. The review meeting at the end of the year should provide another opportunity to adjust the criterion values for factors which were genuinely unanticipated—factors which were not predicted and could not have been predicted, such as natural disasters, wars, etc. This is essential to keep the system 'fair'.

Notes

[An earlier version of this paper was presented at a 'Workshop on Performance Evaluation Criteria for MOUs; organised by the Bureau of Public Enterprises, Government of India, New Delhi, October 14, 1988, and at the Annual Meetings of the Allied Social Science Association, New York, December 28-30, 1988.]

- 1 For details on the history and the concept of MOUs, see Trivedi [1988a].
- 2 For details, see BPE [1988].
- 3 The system that has been outlined in the following section has been derived after an extensive review of the literature on the subject. It represents the core features of successful performance evaluation systems. For further details, see Trivedi [1986a], Mehdi [1988] and Park [1986].
- 4 See Trivedi [1986b] for a more detailed discussion of this point.
- 5 The following is purely an illustrative exercise which is limited by my experience about the technical aspects of this business.
- 6 If this is done explicitly, then there is no harm. However, if it happens by default because the implications were not carefully examined, then we need to be worried.
- 7 Or, they can be made to sum to 100 per cent.
- 8 For further details see Park [1986].
- 9 This refers to the units for qualitative indicators. It implies that here the judgment is made directly as to the level of performance. For example, a corporate plan of a PSU is likely to be assessed as excellent, good or poor and thereby get a score of 1, 2 or 4 respectively. That is why they are referred to as 'discrete' variables as opposed to 'continuous' ones.

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Appendix II

MOU—1988-89—ONGC

Physical targets

(i) Survey	
(a) Seismic	19,540 SLK
Onland	(+ Contractual
	17,582 SLK)
Offshore	35,000 LK
(b) Gravity magnetic	
no of stations	7,000
(c) Geological sq km	9,025
(ii) Exploratory drilling	
(a) Metreage (000)	537.97
(b) Number of wells	180
(c) Rig years	83.46
(iii) Development drilling	
(a) Metreage (000)	493.78
(b) Number of wells	300
(c) Rig years	36.23
(iv) Cycle speed	
(metres per rig month)	
(a) Onshore	616
(b) Offshore	1,093
(c) Total (average)	718
(v) Production	
(a) Crude oil	
(million tonnes)	29.28
(b) LPG (000 tonnes)	595
(c) NGL (000 tonnes)	582
(vi) Natural gas supplies	
(million cubic metres)	7,166
Financial targets	
(vii) Finance/accounts	
(Rs in crore)	
(a) Total income	6,597
(b) Operating expenses	4,021
(c) Net profit	1,883
(d) Total internal	
resources generation	2,250*
(e) Plan outlay	2,350

Notes: * Rs 100 crore will be budgetary support funded by World Bank Loan.

ONGC will be held accountable for any short fall/deficiency in achievement of the above targets, the cause of which is not related to unmanageable constraints.

M A Y D A Y

To bid farewell to the arms
and to welcome peace

To resist autocracy, separation
and communal forces

In our struggle to stabilise

Democracy and keep Trade Union
and other hard-earned rights

LET THE WORKERS AND TOILING MASSES UNITE

GOVERNMENT OF WEST BENGAL

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