

## MANPOWER PLANNING BY AN EMPLOYER

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Manpower planning is not an esoteric field limited to a secular priesthood of planning specialists nor a function needed only at national level. Like all aspects of national planning oriented to meeting mass needs (as seen by those who experience them) through enhanced productive forces and more equitable distribution of income, manpower planning must be participative with the employment unit one of the key participating bodies.

No national plan can incorporate enough detail to cater for the particular needs of any single employer. Even in such a critical and large case as secondary school teachers failure of Elimu and the University to support-from the beginning - a basically correct macro - development plan with detailed subject specialization subplans has led to micro-imbalances which will be harder to correct now than they would have been to avoid. Therefore to be sure that its particular needs are met, any employer should work out his own manpower plan within the national plan framework.

More critical, the national manpower plan can be made more realistic and exact only to the extent better data from employment units are fed into it. Especially in respect of middle level manpower (for example foremen and other technically skilled personnel such as those trained and tested at the National Vocational Training Programme) the present plan is incomplete because it was impossible to secure micro data. At high levels (basically those normally requiring some post secondary school formal training eg University, Technical College, Professional course such as those of the Institute of Finance Management) the plan is much stronger but despite lack of any real bottom up data flow. Continued strength in high level demand projection and training programme orientation to meet it and improved work in the middle level planning field depend largely on more firm manpower planning.

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Manpower planning at firm level involves basic components:

- a. determining baseline data on present needs and availabilities (the difference being vacancies and inadequately filled posts or surpluses);
- b. projection of short (say 3 to 5 year) and medium (say 10 to 20 year) expansion and development requirements;
- c. identifying ways to enable employees who - given their present skills - are "surplus" to employer needs to transfer to employers needing them or to develop new and more needed capabilities;
- d. identifying and implementing training programmes and other recruitment approaches (eg indents to manpower allocation committees) to meet future manpower requirements at the time they arise as well as to remove existing gaps and weaknesses;
- e. ensuring that manpower planning and development (like other aspects of firm planning) is carried on within a genuinely participatory framework.

## II.

Baseline data collection involves making a catalogue or classified list of the firm's present manpower requirements by numbers, posts, skills required. This exercise may indicate that a restudy of job descriptions, post categories, and numbers of employees is needed and that productivity improvement measures must be indentified and implemented as a matter of urgency. In such a case it will probably be desirable to secure the services of the National Institute of Productivity, the NVTP, and/or the Institute of Finance Management as consultants to cooperate with (preferably not to substitute for) the firm's own management and planning workers in carrying out the worker requirement and productivity studies.

Requirements, of course, include vacancies and understaffings and the intermediate case in which a post is filled but by a person who does not (or does not yet) actually possess the skills it requires. Baseline data therefore includes indicating whether a post is filled and, if so, the citizenship - age - skills possessed - record of the holder. More detail may be needed for more specialized and individually more critical posts but the principle should apply from sweeper and messenger to General Manager and Chairman (either may badly need training, either may be vacant or redundant, either may have high or low or even negative productivity).

Vacancy identification is critical in baseline data studies. For example DMT's maintenance problems seem to flow largely from vacancies (or posts filled by inadequately skilled workers) at senior storekeeper, shop floor engineer, and mechanical foreman

levels. The lack of the former prevents creation and maintenance of an adequate spares recording, checking, and advance reordering, system (such as ZTRS employs) while the other two lead to inadequate preventative maintenance, poor organization of funds by task and time allocation, and a heavy backlog of major repairs. The fundis and store clerks are not primarily to blame - indeed the question is not one of blame but of achieving a staffing and reorganization which will allow a return to the 95% of vehicles normally in service level at which DMT was operating in its first months as a parastatal. While ship floor worker participation and support (which there is no reason to suppose would not be forthcoming) is vital the first step needed is manpower planning aimed at identifying and filling key vacancies. DMT is not alone, its management is not unaware of the problem - the citation is not to cast blame but to illustrate how critical baseline data's role in identifying key vacancies can be to halting and reversing productivity declines and improving the quantity and quality of output (whether of goods or of services).

### III.

Manpower planning must be forward planning not simply an attempt to remedy today's deficiencies today without thought to seeing that tomorrow's needs are met at the time they arise rather than by yet more after the event corrective measures. This is particularly true because manpower development takes time - up to 20 years in the case of high level professional posts requiring post - first degree training plus practical experience. Many of our problems today arise because of colonial education and training policies before 1961 and the very weak base they left for manpower development in the 1960's, but by the 1980's major gaps - especially in all but the most technically sophisticated posts - will, if they arise, be the result of our failure to plan ahead in the middle 1960's and 1970's. It is to avert that repetition of weakness that firm manpower planning must include projected future requirements.

The basic projection will include replacements needed to maintain (and improve productivity in) ongoing operations. This includes filling vacancies, training partly qualified post holders, replacing those who can be expected to retire or die or resign or be fired, and citizenizing present expatriate (ie overseas recruited specialist) or local non-citizen held positions. It is relatively easy to work out these needs from the baseline data direct or after a productivity/staffing study if the initial data collection indicates a need for one.

Expansion and new project manpower requirement projections are equally vital. For the short term they can be produced with considerable exactitude. Physical plans are normally complete at least two to four years before a production unit (whether a major expansion or a new plant) comes into operation and a year before construction starts. Thus a five year expansion requirement manpower plan can and should be prepared and training related to it so new units begin operation with as high as possible proportion of trained Tanzanians at middle and high skill (including but not simply managerial skill) levels. For the medium and long term (say five to twenty years) only approximate projections are possible but, if carefully done, these are better than none. Just as the present expansion of Kilombero, Mtibwa, TPC, and Kagera is a basis for Sugar Authority manpower planning for the industry to 1980 (and for each firm's planning its component of that need) sugar demand projections to 1990 afford at least a rough guide to 1980-1990 expansion manpower requirements. In the case of long term plans, coordination among firms in the same industry eg sugar, textiles, motor transport is appropriate because industry requirements can be projected with greater certainty than individual plant ones and a coordinated training (and if necessary subsequent transfer) programme worked out for the industry as a whole and each plant as a separate production and employment unit. eg if two new sugar estates will be needed over 1980-1990 then existing estate 1975-1985 manpower development plans should be formulated to provide skills to "extra" workers at all levels for transfer to the new estates as they are developed. (If necessary, the Sugar Authority should reimburse estates for training beyond their own needs and charge this up to preproduction expenses of new estates.)

#### IV.

Apparent or real "surpluses" of workers often are revealed by serious manpower position studies. For example the initial textile worker requirement estimates both underestimated the productivity of Tanzanian workers initially and after on the job training and overestimated how many would leave. As a result until the "fourth shift" introduction several mills had significantly more shop floor (machine tending in this case) employees than required. Similarly Railways while introducing expensive technological improvements, which reduce the work for unskilled and semi skilled workers, has continued to expand the numbers employed in these categories leading to gross overstaffing contributing to its present financial problems and demands for rate increases which would be damaging to peasant incomes and (to a lesser extent) up country cost of living.

It should be recognized that such "surpluses" are the result of managerial or planning mistakes not of anything the workers themselves have done. Equally it is important to remember that workers are human beings so that scrapping a surplus machine and firing a "surplus" worker are very different types of decisions in human and social terms even if their productivity and finance implications are similar. Redundancy is a last, not a first, resort and is an admission of serious management failures.

The first option is determining whether training existing staff (not necessarily the same ones who would otherwise be declared redundant) to fill existing vacancies can both avoid laying off employees and strengthen the overall manpower position. A second option is to locate another firm with net manpower requirements and arrange a transfer. The third best option is to reduce staff by attrition, that is not hire new workers when surplus category employees resign, retire, or otherwise leave employment. Since turnover - especially in the unskilled and semi-skilled categories where surpluses are most likely - is likely to be at least 5-10% a year, quite a significant amount of retrenchment can be carried out over 18-24 months without any actual redundancies.

Redundancy is a last option but it is a necessary one if either the continued viability of the employment unit is in danger or the price increases needed to maintain its viability with the existing overemployment would be seriously damaging to consumers. This was the case in the sisal industry up to about 1970 at both field worker and senior managerial level. The lesson of all this analysis is that it is much better to handle ones manpower planning to avoid major surpluses of employees over requirements, as well as to minimize shortages, is much to be preferred to trying to untangle the problems for firm and workers after they have arisen.

V.

Once the requirements (present and future) and present availabilities of manpower have been identified in detail the next task of manpower planning is to prepare and then to implement a training programme. Only to the extent that the plant's own training programme - including courses outside the plant itself - is or will be unable to meet needs should indents to manpower allocation committees and other external recruitment be seen as ways of bridging the gap.

Three key weaknesses in firm level manpower planning appear to be lack of imagination in devising in service, local institution, and special training programmes run by the firm, lack of means for serving staff (especially at shop floor and intermediate but also in semi-professional and junior managerial posts) to acquire skills needed for promotion, and an overemphasis on credentials based on full time,

standard education. The result is heavy dependence on indenting for new trained manpower, lack of internal manpower development leading to lowered morale, and unnecessary vacancies. Self reliance has its place in firm manpower plan implementation and it should not be as minor a one as often seems to be the case today.

Training may be "on the job" is an approach especially relevant to semi skilled and skilled shop floor (or bank counter or office desk) positions but also to planning and managerial posts in which preparing first drafts of problem resolution, to be checked and criticised by a more experienced officer who discusses his changes with the trainee, is a recognized training method.

On the job training is not automatic or easy; procedures (and training for trainers) to make it work may be quite complex. Neither is it likely to form a complete programme - some more formal lectures seminars, demonstrations will usually be needed with either regular plant staff or specially employed personnel serving as trainers. In more elaborate form such sessions become an "in plant" training course followed by an initial supervised on the job working experience.

For many skills the number of trainees in any one employment unit is inadequate to justify a special plant course even if the specialist training personnel could be secured. In that case either released time - eg for afternoon or evening classes at the Technical College or IFM - and full time assignment to outside institution courses may be most appropriate. Even in these cases close liaison with the training institution and some "in plant" component should be developed.

Consideration must be given to what courses are appropriate. In certain cases eg use of discounted cash flow techniques, operation of a new fork lift truck to achieve maximum speed and stacking efficiency, a short full time course is probably best. In others eg senior level accounting, either a one or more year full time course (beyond intermediate accounting) or a somewhat longer part time course for personnel who cannot be spared for any extended period is appropriate.

Part time courses are critical in the case of serving middle level personnel who need advanced training to acquire skills for promotion but who simply cannot be released from their present posts for normal full time technical or professional courses.

If no provision for part time training is made they will not be promoted but will see younger, inexperienced, but technically trained graduates brought in over their heads. Naturally they will be discouraged or embittered; naturally their productivity will fall; naturally their inexperienced "superiors" will make mistakes which the experienced serving officers would have avoided had they been given a chance to qualify for promotion. Such are some of the costs of failure to use creative imagination in manpower planning implementation and of placing a blind, elitist faith in paper qualifications.

Once course needs—from the point of view of the firm and its workers—have been identified, it is necessary to locate the appropriate institution (or institutions—quite probably some courses would be more appropriate to one and some to another) whether it is NVTP or Technical College, IFM or IDM, NIP or Co-Operative College, East African Management Institute or College of Business Administration, University (Dar or Morogoro campus) or Tanzania Audit Corporation, Secretarial College or Tanzania Legal Corporation to cite the institutions likely to be more widely relevant. If no existing institution seems well suited to providing a significant number of a firm's courses it may be worth considering whether an industry (not usually a firm) based special training institute would be appropriate—examples in which this is possible include the Textile and Sugar Industries and possibly the Transportation/Vehicle Maintenance Industry.

Courses themselves fall into three classes. First there may already be courses meeting a firm's needs—in that case no further problems other than enrolling candidates need arise. In the second a course is basically suitable but requires additional material and discussion with the training institutions concerned as to its modification either for all participants or a special group will be required. Finally there may be no suitable course in existence at the present time and either the firm or a group of firms with similar needs must make representations to the training institution to add to its catalogue to meet their needs. This is certainly possible—most IFM courses and at least some at NIP and NVTP have arisen directly from firm indications of their special requirements.

Sponsorship of candidates at existing formal educational institutions—e.g. the Technical College or IDM—is an extended version of the training course approach. It is safer than waiting for allocation of graduates so far as the firm is concerned and also allows bonding of the trainees to the specific firm which provided what amounts to paid leave to study (whether during or before their formal employment with it). However, it is not a method which really increases total

national manpower development unless the institution was grossly under-utilized prior to the sponsoring of students. Probably such sponsorship should normally be limited to serving employees e.g. the first rate foreman who clearly has the aptitudes and mental capacity to become a technically qualified engineer if sponsored for a full Technical College course.

If manpower development by the firm clearly will fall short of meeting manpower requirements then outside recruitment is essential. Outside recruitment needs-like other aspects of manpower development-should be planned well in advance. For example the Manpower Allocation Committee should be given firm two year and draft five year requests for allocations. It is, of course, the principal source of new Tanzanian graduates. In emergencies the Standing Committee on Parastatals and parent Ministries will need to be approached to locate seconded or transferred staff to meet genuine crises. (For example if a plant must have two degree level chemical engineers and both are killed in an automobile accident the only sensible interim solution is to secure the transfer of at least one engineer from another organization.)

If citizen manpower cannot be procured expatriates are needed. A vacancy is not a citizen of Tanzania and can-if the post is a critical one-have a cost far higher than any expatriate salary. Again forward planning is necessary. For all expatriates time is needed to procure necessary Manpower Committee, Labour, Immigration clearances and to locate a suitable candidate. (By definition most of the positions for which we wish new expatriates are ones in which there tends to be a scarcity of qualified personnel in most countries so it is not normally a matter of a few advertisements, a few days and a host of competent applicants appearing.) Still more time is needed if the firm wishes to economize on its budget and on Tanzania's foreign exchange by enlisting Treasury help in securing a technical, professional, or managerial level appointment on technical assistance. Vacancies at these levels should be predictable well in advance and the total cost to the firm in many cases (assuming it can get a competent person on direct hire-if it gets an incompetent of course the cost may be much higher) can easily run to Sh 200,000 and sometimes much more. (The pre tax equivalent of Sh 100,000 which is not an absurdly high figure by North European standards and is a rather low one by North American ones is far in excess of Sh 1,000,000 when related leave-gratuity-housing-other fringe expenses are taken into account.) True the net cost to Tanzania is lower because of the income tax element but it is still high. There is therefore



a strong case for much more frequent and much earlier parastatal requests (backed by detailed job descriptions and justifications of the post) to Treasury to locate technical assistance candidates.

Planning ahead is critical to effective manpower development. For example plans are now being finalized for two new cement plants. Construction of at least one will begin in 1975-76 and completion should be in 1978. The appropriate manpower development planning schedule for State Mining and Wazo Hill is therefore:

- 1974- Identify staff requirements for 1978 and length of appropriate training for various categories of posts.
- 1975 Commence training of middle level personnel at Wazo Hill and in Dar es Salaam technical institutions. Also commence training of senior personnel-possibly in cement plants abroad.
- 1976 Involve senior and some middle level personnel in the detection supervision and testing of the new plant. Continue Dar training of middle level personnel and begin semi-skilled employee training at Wazo Hill.
- 1977 Utilize all trained personnel-including semi skilled in initial start-up and testing operations.
- 1978 Plant comes into commercial operation with significant numbers of Tanzanians at senior as well as 100% at middle and semi-skilled levels. (Any needed expatriates would have been identified and recruitment carried out during 1976-77.)

The same is true for almost any major expansion or new plant-it applies to the much enhanced railway repair workshops and to TEXCO's two new textile mills quite as much as to the cement plants. Parallel efforts should by now be in hand at National Transport in respect of its road haulage build-up to 1980 and at NBC in respect of regionalization, savings bank development, and foreign operation department upgrading. (In the last case a very high level task force certainly has existed for a year although given the pace and timing of the changes even this is far too tight for comfort. It does, however, reflect a step forward of considerable significance compared to normal past, and indeed present, approaches to major medium term staff development to meet future as opposed to present needs.)

VI.

Participation is as critical to manpower planning and development as to any other key part of an employer's operations. Participation must be a genuine involvement of all types of workers in the firm decision making process not a subterfuge or an attempt to manipulate

workers or it will be counterproductive. Sham participation is quickly seen through and either treated with contempt or countermanipulated to serve specific secondary interests of some workers in ways hardly likely to assist the firm and far removed from the intention of creating a more egalitarian working unit in which all workers from messenger through general manager are able to contribute as much as they can to their common tasks and all participate directly or indirectly in major decision making processes.

This is not to say that there are not technical constraints and professional techniques not subject to alteration by the majority vote of a committee. Of course there are. The point is rather that these constraints and techniques-if real- should be explainable in language that Workers Council members can understand, after which they are much more likely to accept them and work within or with them. Further, workers in positions of all types are likely to have genuine contributions to make to the formulation of a detailed list of requirements and ways of meeting them. Ritual suggestion boxes are not enough-much more active and effective encouragement to presenting ideas and comments is needed.

In a quite different sense a training officer or manpower planner must be constantly aware of the need to involve other managers in his data and development formulations. No training or planning officer can know everything about the firm, be able to carry on each task which some worker must do, teach each and every require training course. What he must do is to secure information from those who do have these capabilities and organize it in a way which creates a coherent body of firm data, training programmes, recruitment schedules, and overall manpower plans. He need not-for example-know the precise difference between types of engineer so long as he knows from his firm's engineers that there are certain critical differences in qualifications and appropriate training programmes and incorporates that knowledge in his work. Even in fields in respect of which he has personal professional expertise it is vital to involve the operating managers in his planning so that they may add to his knowledge and be committed to what must emerge as their joint plan not his lone effort.

The importance of manpower planning and training justifies a special Workers Council Subcommittee specifically charged with ensuring effective participation and communication in this field. Its responsibilities are by no means limited to Workers' Education although it certainly should play a focal role in developing Workers' Education beyond the initial literacy scope to broader socio-political, political-economic, and productivity oriented areas. Another area

in which it should take the lead is that of working out qualification requirements and application/selection procedures for serving workers entry into on the job, part time, full time, or sponsored training courses to qualify themselves for promotion. Probably one or more members of the subcommittee (including a non-managerial worker) should also sit on the selection body so that its work can be seen to be fair (a point quite as important as its being in fact fair). The Subcommittee can then be expected to take a leading role in making the training opportunities known to all workers in the firm and in channeling their suggestions as to possible changes for serious consideration before they become grievances. For example if such a Subcommittee indicated that middle and quasi-professional level workers were worried because they were told they could not be released for full time courses because their jobs were too critical to lose their services but that they could not be promoted until they secured new or additional qualifications a key problem would have been identified in time to devise short or part time course routes to securing qualifications before the suggestions and worries turned into bitterness and grievances.

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