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**ADMINISTRATION
AND
PAKISTAN**

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CHAIRMAN	M A ALLAWALA
MANAGING DIRECTOR	MASOOD HASAN
DIRECTOR	A KALAM
DIRECTOR	DR M A WAJID

This pamphlet is the first in a series by EMMAY Associates (Pvt) Ltd an organization dedicated to improving the management function. In addition EMMAY are involved in energy, electronic data processing and other functions. The views expressed are those of the author.

About the Author

MASOOD HASAN

MSc Punjab Univ Lahore in 1946 and received his MS (Chem Engg) from Case Institute of Technology Cleveland in 1948. Has was a Joe & Seagram International Fellow Louisville Ky in 1949 , Is fellow IE(P), PIChE and registered with Pakistan Eng Council (Chem No 1) also member ACS and AIChE. Attended Session 39 of the General Management Course at Greenlands, Henley-on-Thames in 1960. Has worked with Unilever)1950), Lever Bros (Pakistan) (1951-53) Wazir Ali Group (1954-63) set up EWP Computer Services Ltd (1963)and United Consultant (1967), was a Federal Secretary, Ministry of Defence (1973-77), Chairman Federal Management Development & Inspection Commission (1978), set up EMMAY Associates (Pvt) Ltd 1979 of which he is Managing Director. Has contributed articles on Administration in national newspapers and professional journals, has also deigned and conducted post graduate and post experience training courses in public and business administration, as also on several committees/boards/councils. Is also a consultant to international agencies.

ADMINISTRATION AND PAKISTAN

INTRODUCTION

A common thread that runs through various political systems: Socialistic, Capitalistic, Communistic or a combination of them or Islamic is the necessity of having an administrative set-up to define policy, see that it is executed and ensure effective control. The 'form' of problems thrown up are quite the same even though the 'content' may vary considerably. A number of years ago in a conversation with the Swedish Ambassador centering on administrative accountability was told that there was less corruption in Sweden and more in Southern Europe was not on account of the 'Swedes' being basically more honest but because they had a system that made it difficult for them to go astray. Over 90% of the industry in that country is in the private sector yet it has one of the most successful welfare institutions in the world with a very high standard of living. The process of earning wealth and its redistribution works. The system harnesses/motivates the individual and ensures the not so fortunate are taken care of. This is not to say that it is the ONLY way of doing things, there are others, but we should learn from the efforts of others, after all the principles remain the same everywhere.

Policy can never be expressed through a definition of technical details or ground level procedures, for if this does happen both motivation of individuals towards work and effective control will not be possible. It is also true that policy which is not implemented will lead to short circuiting or modification of detailed work flow at the whims of those concerned. It appears, if we look at what we have made of our administrative inheritance that we have not learnt what we should and have in the process forgotten nothing.

Control which should be synonymous with accountability has eluded us so far. The essence or life of administrative accountability must be derived through experience not bald barren tradition if it is efficiency that is wanted. This implies analysis of what has happened (past tense) to help us move towards the unknown (future) with a measure of confidence. Complexity commands respect and must be met appropriately at the level it demands. Making observations and then arriving at conclusions, rather than starting with unreasoned assumptions, is what is required. However, even this, in the world of today is not a simple matter. If one time land revenue accounted for well in excess of 90% of our

revenue, now it is a fraction of 10%. The reasons of this change should be examined carefully. It is related to the fact that our countrymen abroad, without additional education/training, become several times more productive than what they are at home. This means their direction is properly laid out, the required support services are in place, feedback regarding performance is available in good time hence control can be exercised effectively. In our administrative set up we appear to move with ease to either of the two ends of the administrative continuum ie wholesale centralization which results in tyranny or wholesale decentralization or abdication which leads to chaos. Let us try to determine if anything worthwhile can be done about it and now.

After all much has been written and more has been said on the various / several aspects of our 40 year old administrative function. However, the substantive problem of upgrading administrative effectiveness has been unsuccessful thus this remains unfinished.

It bears repetition that since 1947 we have moved from a colonially administered set-up to one involved in productive activities in which law and order is required, but only as an hygiene factor: necessary to permit productive or developmental activities to forge ahead. Law and order thus moves away from being a primary objective to that of providing an essential of the infrastructure for progress. Just as a dirty office or factory cannot be efficient it does not follow a clean office or factory is efficient, but at least it has a chance. Unless the implications of this are understood there is little chance of introducing improvements that will stand the test of time ie get institutionalized. In moving on to a productive economy over the years, for better or for worse the interference of the government in day-to-day affairs of the citizen has increased. This is neither approval nor disapproval. But it does entail an understanding that with more and more centralization of authority, that we ensure the tools to handle such centralization are forged and introduced effectively, otherwise one wheel of the proverbial apple cart will be missing and that is our present position.

Consider agriculture – the prices of wheat, of rice, of sugar cane, of cotton and of oil are controlled with some loosening of control on fertilizers and pesticides. Then consider the movement of grain, of what will be exported, of what will be imported and at what cost, not to talk of water releases. Where the government purchases grain there is, in addition, much work involved from sample approval to paying the grower. The paperwork is there

to ensure (what is termed) 'control' as it provides 'evidence' of what happened, but hardly ever is it a true reflection of the real state of affairs. All this means the powers of the various flunkey's of the state has increased in proportion to its increasing involvement in the affairs of its citizens.

It is beyond the government current capability to handle the type of problems being thrown up on account of its method of conducting its business. This is reflected in the progressively increasing corruption over the years. And what is more we are prepared to condone it by taking refuge in the idea that unless the morality of the citizens of the country as a whole improves it is futile to expect improvement. This is defeatism – the counsel of despair. In order to reduce, leave alone eliminate corruption it is therefore, necessary to understand why day-to-day current conditions are becoming progressively increasingly conducive to positively encouraging corruption. This is in spite of all the measures currently available to us are taken AFTER an act of **commission** occurs. Even though acts of **omission** may cause a greater loss to the exchequer, such are our ways and means of assessing administrative efficiency, that it is agreed that even though results are not obtained, even though the goal is not attained but most importantly the file is beautifully clean because all the procedures required to be followed (some going back to Queen Victoria's time) have been followed to the letter, hence all's well. The honest blinkered bureaucrat and the dishonest officer are both highly satisfied. In that the latter has made his killing because the procedures are not designed to take in all the several permutations and combination of circumstances relating to the capricious use of discretion ie the procedures do not possess requisite variety. Lack of definition provides the basis for flexibility of action and the method of administrative evaluation the protection to the flunkeys satisfaction. The honest blinkered bureaucrat is also satisfied in that the file is clean as all the procedures have been faithfully followed. But who cares whether results have been obtained. Acts of omission are deliberately ignored by our methods of evaluation.

It follows that the above mentioned situation will continue to hold sway as long as there is the unnatural situation (creating stresses) of overcentralization. It should be clear that centralization and decentralization are two sides of the same coin. Too much of the former is tyranny as is too much of the latter chaos when we are considering the single

system called Pakistan. Tyranny tends to smother innovation. Even if it enforces discipline it is without imagination, hence sterile (the reverse imagination without discipline is of course rampant disorder). If we are to move in the direction of self-reliance the need to ensure devolution of authority is an imperative. The present system of expecting the federal government to make good deficits in non-development budgets leads to a poor financial discipline that is procedurally bound. There is no motivating force to encourage creative thinking in raising revenues. In regard to development expenditure there is little or no realization of what future funding will be required to take care of the increased recurrent expenditures. We need to harness the forces that can make investments more cost effective. Decisions must be made as close to where they are applied as this encourages self-regulation. It encourages people to think at the level that in the final analysis matters ie the level at which the physical transactions actually take place. One of the prime reasons why our education system is in such a mess arises out of the over centralization that afflicts it. What needs to be centralized is the definition of policy which does not include such matters as releasing funds for purchasing an air ticket for attending a seminar in Timbuktu. Several examples could be given to support the aforementioned but it is unnecessary. What is necessary is to phase in decision making to match the requirements appropriate to the level being considered. What is also necessary is to have a system of feedback of information concerning implementation of various plans and programmes so as to make it possible to have single system. This could be the first phase in bringing in changes that will help to release the genius of our people, it will also tend to reduce fissiparous tendencies. The provinces must, therefore, shoulder the burden that is rightly their's rather than leave it all to the overheads. National cohesion demands this. It requires a tremendous amount of effort, it will involve a complete reassessment of what would have to be performed at the divisional, district and tehsil levels. It will generate a feeling of participation currently missing. By and large services would have to be provincialized. Possibly each province should have 30% representation from other provinces. Possibly the residential schools also have 30% from the other provinces.

When one trusts another person on the average such a person responds positively. The maintenance of the positive attitude comes through an information system that

disseminates continuously current status. It should not be forgotten that overheads are always financed by the productive units. The productive units are the provinces. It was not without good reason that the Boston Tea Party took place if we refuse to recognize our current situation corruption will become increasingly entrenched, as if it isn't bad enough right now. There are several lessons to be learnt from history, hopefully that we will stop digging holes and then falling into them.

However corruption may be defined, finally it is a measure of the absence of effective administrative institutionalization. It also arises on account of the lack of effective political institutionalization but my view is: at our present juncture immediate attention must be paid to the administration and that too more from the point of view of increasing efficiency rather than that of eliminating corruption. Because this is the practical method of moving in the direction of reducing corruption. If we are to wait for political stabilization, there will be further administrative deterioration.

It would therefore, be meet to spend a short while to see how administration had 'developed' over the years to take care of the problems it has in its wisdom taken on itself. And this will entail a review so as to ensure the symptom ie corruption is not mixed up with the disease, for it is so easy to treat the symptoms and suppress them temporarily only to find later that the disease gets worse. With progressively more drastic treatment the disease becomes chronic and is no longer amenable to traditional or ordinary remedies that we may like to apply.

The three important factors in any administrative system are: the **structure**, the **personnel** and the **operating systems & procedures**. We have tinkered around enough with structures, centralizing the decentralized and vice versa, changing A for B and X for Y, but never have we made a serious attempt to alter our operating systems and procedures as this is where the resistance really lies, because preservation of the status quo is supposedly a 'good' thing. Unfortunately bringing about this change is easier to talk about than to implement.

The impact of the first industrial revolution brought in its train new sources of wealth and power as well as the appearance of new classes making new demands on government in the UK, USA and Europe. However, it is change brought about through technology that is the real culprit as this change must force a change in basic values moving towards

achievement based results which forces upon us corresponding norms. Our present administrative methods related to the conduct of the business of government positively discourages adaptation to technology. In addition, modernization is forcing loyalties to the state rather than kith/kin/baradari, as well as spread of the assumption that citizens have equal rights against the state and obligations to it.

It has been said corruption in an undeveloped economy that wishes to industrialize, is in part not so much the result of the deviance of behaviour from expected norms as it is the deviation of norms from the established pattern of behaviour. The 'rich' trade wealth for power and the 'poor' authority for wealth. Modernization or technology encourages change in basic values, creates new sources of wealth/power and expansion of government activities leading to multiplication of laws with consequential increase in avenues of corruption. All the more reason for us to hearken towards modern management aids – rather, the modus operandi to adapt or graft them to our administrative systems. These methods by and large have been developed since 1960 on the civil side (it was 5 years earlier on the military side).

There is no question but that a continuing fanatic anti-corruption mentality (ie curative) ultimately has the same effect as corruption itself, both ultimately challenge the 'autonomy' of politics. It should be clear that our administrative function is a powerful political force. An efficient administration helps to generate distributed economic growth and so a stronger economy. There is paradoxically hardly anything worse than a country with a rigid, overcentralized honest bureaucracy, particularly when the honest part is found mostly at the top.

Going back several years: the first worthwhile "looking into" of the British Indian administrative system took place in 1945-46 when Tottenham analyzed its problems on account of what was felt had been a breakdown, under war stress with the induction of less efficient personnel, of the administrative system that was to later form the administrative inheritance of Pakistan.

It was quite clear that our erstwhile colonial rules were quite eclectic in their approach but always keeping a well-focused eye on their goals/aims/objectives of the system/government as they saw it. The emphasis was to move from the old concept of government as "a regulator, policing and taxing mechanism" to making social and

economic welfare the goal, the government acting as the means to that end. Quite a turnabout, but that's what World War II did however, our erstwhile rulers handed over the baton in 1947 without being able to follow up in this direction.

In the past 40 years several changes have taken place in all aspects of our national activities both technically and socially. Unfortunately these changes have not been reflected in our administrative or executive environment. 1947 to 1960 can be considered the first phase (in relation to international administrative/executive developments) of governmental activities and the post-1960 period the second phase, this watershed also somewhat coincides with the beginnings of 'development' in a big way in the undeveloped world.

From 1960 onwards the techniques of administration/government on the civil side in the world gave way to the introduction of what today are recognized as modern management techniques. But this has not most unfortunately happened in Pakistan because introduction of any modern management technique has a liberating influence, it forces an organization to open itself up! And our erstwhile administrative thinking has run counter to this requirement to improve efficiencies or productivity. (On the military side: modern management methods had been introduced about 5 years earlier).

However, going back to 1947 the Government of Pakistan (GoP) has since had well over a dozen commissions and committees entrusted with the objective of examining our administrative pathology and to prescribe remedial measures. Functioning with or without the assistance of foreign personnel, these committees have presented their reports to the government of the day. However, it is apparent, because of repeated "commissioning", that the objectives for which these commissions were constituted did not yield acceptable results.

One of the significant features of the personnel system before 1973 was the pre-eminence of one cadre – the Civil Service of Pakistan (CSP) which enjoyed what is best described as "official pre destination". This included guarantee of quick promotions, assurance that the number of posts reserved in the administration for the CSP cadre (I believe in 1966, about 750) would be in excess of its membership (I believe in 1966, about 450) and the hope of occupying the highest positions in government. It is noteworthy that some of the privileges accorded to the CSP had not been enjoyed by its predecessor, the pre-

independence elite cadre, the Indian Civil Service (ICS). Another point is worthy of note is that in British India ICS Officers were required to acquire several years' experience – may be 15 – **before** appointment to middle-level positions such as a Deputy Commissioner (DC) and several incumbents did indeed retire in that post.

In Pakistan, on the other hand, inexperienced young men were installed as DCs. As they rapidly moved up to higher positions, they were succeeded by equally inexperienced young officers who obviously could not be guided properly by their seniors. The fact that governmental activities had increased considerably after independence because of the greater involvement of government in economic and social development should have been a cogent argument for the appointment of more mature and experienced officers. What happened was quite the opposite. If 15 years were to have been taken as the 'normal time' to take over as a DC, it seems quite odd that after 40 years we are facing a great shortage of suitably qualified officers. And it is clear the less suitable an officer for any given job, the greater the inefficiencies generated, which provides the suitable infrastructure for corruption. It would appear the idea of career planning, taking in the realities of an expanding developing economy into consideration, was jettisoned on the altar of deliberately affording quick promotions. This aspect of personnel administration can be appropriately taken care of as an 'inventory' problem. Operations Research (one of the management services) which would have 'queueing' overtones, but an unprofessional attitude ignores this.

With regard to recruitment to the CSP, it is to be noted that the percentage of those selected from other classes/services to Administrative Class in England and the Indian Administrative Service (IAS) in India was as high as 40-45%. As against this the number of persons inducted to the CSP from other services was never more than 1-4%. In other words, a young man who, for whatever reason, had not been selected for the CSP at the age of 20-21 was forever debarred from entry into this service, his subsequent achievements and distinctions and his proved value as an administrator notwithstanding. This practice was as unjust as it is irrational and indeed created a great deal of bitterness and frustration amongst the members of other services, with its concomitant effect on efficiency which affects us to this very day. While, in pursuance of objectivity, it must be admitted that though those who were selected for the CSP, at the time of entry, scored

highly in personality and intelligence, it did not logically flow that all of the CSPs would maintain this superiority over the rest of their service life. There are early fliers who fizzle out half way as there are others who bloom later in the season. Our personnel system, notwithstanding lip service to merit by those concerned, must be revamped to cater for this not unnatural phenomenon.

It was possible – and not infrequently it did happen – that through their hard work, devotion to duty and honesty, many members of other services demonstrated their superiority over several members of the CSP. However, Establishment Division the custodian of the GoP personnel system made no provision for recognition of such achievements, such as was provided for in both the personnel systems of Britain and India. Indeed it had truly established a reputation for incompetence.

The “administrative reforms” of 1973 ended the supremacy of the CSP. But it did **no** more than that. A personnel system was displaced, but not replaced by a superior system. The “administrative reforms” statement ridiculed the “generalist” in administration but the generalist administrators of the censured cadre were replaced by other generalists – often of lesser caliber – and no attempt was made to develop **professionals**. It is the truly professional approach that can bring about better administrating making corruption more difficult. (Refer to Annex I for a note on Professionalization.) Similarly, the other areas too the pledges contained in administrative reforms documents as “The people need, indeed demand, a new system of administration. A strong, honest and professionally competent administration that is clean, accountable to the people and whole-heartedly dedicated to the development of the country and the service of the people”, proved to be mere sound, just empty words.

This was history repeating itself as General Yahya addressing the Karachi High Court Bar Association in August 1969 said “At the time when the Armed Forces were compelled to assume responsibility for running the government of the country the law and order situation was extremely alarming. The normal law-enforcing agencies had become entirely ineffective. The economic life stood paralyzed. There were mounting complaints from a groaning people of inefficiency, corruption, nepotism and the like evils against the administration. In the circumstances, the foremost task before any government

has been to bring order out of chaos, protect life, liberty and property of people and *rehabilitate the administration which was never at a lower ebb in our country*".

The Administrative Reforms announcement of Aug 20 1973 can be compared with the Interim Constitution of 1972: Just as various articles and clauses of the Constitution failed to be implemented or were flagrantly violated the implementation of the proposed reforms remained, at best, a superficial gesture and was in many cases characterized by total disregard for the principles enunciated.

Why did all this happen? It is not difficult to identify the main factor as political considerations. Pakistan has witnessed an uneasy politico bureaucratic relationship which can be described as nothing less than an "interference complex". In the 1960s Pakistan's polity was bureaucratized, civil servants improperly assuming a political role. The period 1972-77 can be best be described as that of politicization of the bureaucracy. Political leaders and forces interfered in administration to such an extent that it was often rendered incapable of performing its functions according to its mandate, with probity and with necessary regard for regulations and principles. In matters of the greatest importance and in petty matters alike the political sword of Democracies hung over all government employees, who lived in fear and uncertainty.

Politicization of the bureaucracy was further achieved with the system of lateral entry to government service. While lateral entry has been recommended by experts (and it does make sense) in Pakistan, Britain and elsewhere, the lateral entry procedure adopted in Pakistan was a mockery of the system and was, on the whole, a "Spoils System". Lateral entry is an effective recruitment system if it is based on certain recognized principles: "For late(ral) entrants of all kinds the prime factor in their appointments must clearly be the relevance of the skills, qualifications and experience they already possess for the job or range of jobs in which it is proposed to employ them" (Fulton Report). Such basic requirements were completely ignored and the main factor in the selection of many lateral entrants was not "know how" but "know who"!

The politicization of the bureaucracy produced unfortunate results: civil servants could not, by and large, act with courage and boldness and in accordance with their conscience, as the risks/pressures were too great. From this it certainly does not necessarily follow that administration can **only** start being improved if the political process is put right first.

Complex problems have to be attacked in parallel, not in series (refer to Annex II for a note on the Qualitative Shift). Just as an open lush pasture is invitation to grazing, similarly improperly constituted organizations makes intrusions into their domain that much easier. The absence of 'fence protection' brought through efficient administration is missing.

If we are to take cognizance of contemporary developments a better understanding of the effect of technology on administration is required (refer to Annex III for a note on Technology and Administration). It may appear that much is being made of a mole hill. The days of masterly non-intervention have gone with the wind, not doing anything helps generate more and more complex problems with increasing rapidity.

Professionalization of knowledge, an understanding of the Qualitative Shift and appreciating the relationship between Technology and Administration certainly needs our serious attention which we have not bothered to give it.

It is unfortunate that Article 216 of the provisional constitution of 1972 was dropped. It reads as under for the setting up of Administrative Courts and Tribunals.

- (1) Notwithstanding anything herein before contained, the Federal Legislature may by Act establish, one or more Administrative Courts or Tribunals to exercise exclusive Jurisdiction in respect of:
 - (a) matters relating to the terms and conditions of persons in the service of Pakistan, including the award of penalties and punishments;
 - (b) matters relating to the imposition, levy and collection of any tax, duty, cess or impost;
 - (c) matters relating to claims arising from tortious action of Government, any person in the service of Pakistan any local or other authority empowered by law to levy any tax or cess and any servant of such authority acting in the discharge of his duties as such servant;
 - (d) matters relating to industrial and labour disputes; and
 - (e) matters relating to the acquisition, administration and disposal of any property which is deemed to be evacuee property or enemy property under any law.

(2) Where any Administrative Court or Tribunal is established under clause (1), no other Court, including the Supreme Court and the High Courts, shall grant an injunction, make any order or entertain any proceedings in respect of any matter to which jurisdiction of such Administrative Courts or Tribunal extends”.

Naturally, with the devolution of powers to the provinces such an institution would need to be established at the provincial level.

We need to remind ourselves that external controls by themselves are ineffective when dealing with any large complex system, such as the administrative system of our government. The ‘external controls’ that we rely on are of accountability (judicial variety) and of audit. Both audit and the law come into play **after** an act of commission. The futurity that concerns them is “bail before arrest” and that too is relatively short term. When an administrator or executive realizes the brand of accountability that is applicable he reacts intelligently ie on the basis that if the body isn’t found the murder was not committed – all the files are beautifully clean is procedurally correct. Whether results have been obtained is besides the point! And somewhere down the line the sins of omission do not appear, even though they may be very very much worse than those of commission. Try to prosecute someone for thinking of embezzling a sum of money twelve months hence!

Effective controls are always internal, particularly when you are harnessing technology. The late Sarabhai in his Foundation Day Lectures at the Administrative College of India in December 1969 quoted from the US Panel on Technology assessment in regard, to internal and external evaluations thus:

“Implicit in much of this report has been the distinction between internalized assessment (ie assessment built into the incentive structure, the decision-making process in question) and externalized assessment (ie assessment conducted by an institution deliberately separated from the front-line decision-maker). There has been general agreement in the panel that internalized assessment whenever it can be applied, is far preferable essentially because self regulating close-loop systems are best able to adjust to net variations within the system itself. Externalized assessment separates authority from responsibility tends to re-define responsibility without separating it from authority (and further). However self-

regulating systems may be insensitive to externalities and may have to be substituted by externalized open-loop systems. Thus although there are advantages in being on the scene, proximity and commitment tend to generate blind spots. In sum, any scheme devised for improving the assessment and management of technological change should make maximum possible use of the internal decision-making process and should proceed by making these processes more sensitive rather than by imposing external constraints, but it should recognize the necessity for some external assessment and supervision to make the system function properly, ideally, the effort should be made to modify goals and criteria of success without dictating the means of achieving them”.

Effective control of the executive can only be from **within** the executive itself and that is where the Administrative Courts and Tribunals will be lodged. It also needs to be remembered that the administrative or executive is making decisions based on incomplete evidence (no hindsight please).

The absence of ‘fence protection’ also makes it difficult to implement any policy that requires procedural change because of the existing uninstitutionalized procedural fluidity. Just as water finds its own level procedures get moulded to the particular shape they are contained in. Hence, if a decision is made to institute a one-window operation for entrepreneurs who wish to put up an industry somehow no one can or wishes to shift to overdrive. The mould the procedures are resting in is incapable of adjusting to the new requirements. The result is non-implementation. It is also of interest to note that the recent statement of the Planning and Commerce Minister calls for the implementation of a 12-point programme so as to:

- 1) streamline non-development expenditure;
- 2) reduce ‘wastage’ in development spending;
- 3) improve tax collection;
- 4) broaden the tax base;
- 5) levy ‘users charges’;
- 6) improve savings;
- 7) reduce imports;
- 8) expand exports;

- 9) improve capital formulation in the public sector;
- 10) reduce non-functioning subsidies;
- 11) enhance reliance on domestic technology and skills; and
- 12) diversity foreign trade to expand trade with the socialist bloc.

It appears barring recommendation 12, the others are all dependent in very large measure (some more, a few less) on new procedures. Assuming we know, the detail current status. We are clear what we want to achieve. The real problem lies in the transition phase. The fluidity makes it virtually impossible to handle the situation. Any agency outside of the executive would always have circles run round itself if they tried to put matters right.

Having internal control ie the executive controlling the executive permits evolution of effective methods. This approach is sympathetic to the approximately correct decisions being made at the right time, rather than the correct at the wrong! After all you can correct yourself as you go along. Judicial or audit accountability on account of their external approach must always be concerned more with the sins of commission and not omission. This effectively smothers innovative thinking, resulting in hardly any creative output. Making use of science and technology calls for stepping away from the routine rut and treading new trails because yesterdays precedent may be dangerously misleading and totally irrelevant when applied to today's problems if only on account of the Qualitative Shift (Annex II). This shift also brings out the necessity for considering time as a resource. Neither the law nor audit can be said to be pushed on this core. Very much like thermodynamics which can tell you a lot about a certain process whether it is possible or not but it will not tell you how long it will take to achieve results. The speed of the non-productive activities governs the speed of the productive. The deleterious effects of the non-productive can be reduced by having sound and reliable reporting, sound and good management development programmes and an organization structure that helps moving in the direction of facilitating work flow rather than providing all the hindrances which appear with nagging frequency. Should we not insist on this since it helps positively in generating self-reliance? Removing the deleterious effects of the non-productive is equivalent to the implementation of the design, construction, installation and maintenance of the required administrative fences that will help to reduce outside

interference, the bane of our administrative system. A lush unfenced pasture does indeed attract hungry animals. Fencing will ensure only but a few successfully jump over.

Our procedures, evaluation, reporting and management development programmes certainly do need a little bit more than a retrofit/rejuvenation! It is out of such realization that the proper approach will dawn forming links in the chain of effectiveness: that there is no such thing as a technological gap; it is a managerial gap, this was first said by McNamara at Millsap's College, Jackson (Miss) in Feb. 1967, even though his thoughts were in regard to the gap between highly industrialized European countries and the USA. The Europeans, at that time, were afraid that a kind of technological colonialism was threatening them. The brain drain to the USA represented an effect not of merely advanced technology but the cause, which without question was much more effective administration or management of organizations. Such thoughts can also be applied, albeit at a lower level of sophistication, to the underdeveloped world – some parts with money but inadequately qualified manpower and other parts with little money and a reasonable reservoir of manpower.

TECHNOLOGY AND CHANGE

Another realization that must crystallize in our minds is that modern advances are firmly based on multi-disciplinary collaboration which has produced a vast array of new organizational tools including amongst others, operations, research, cybernetics, information theory, decision theory, systems and procedures, electronic data processing and autonomies. Logical to this realization is that we move in the direction of self-reliance by introducing flexibility in our method, but using as sheet anchor the scientific, empirical or inductive method, which was first popularized by Islam in a big way thirteen to fourteen centuries ago.

Since it is the man behind the pen that ultimately matters, greater attention must be paid to him in recruitment, in training, in evaluating, in merit rating and in performance appraisal as also in updating his obsolescent knowledge...

New methods of training are required to provide the missing link – the bridge between practice and theory (not, presently, the other way around!) and then to strengthen this and then to continuously maintain it. Just as a machine requires maintenance so does the human brain if only because of the shorter time frames in which knowledge is doubling

itself, may be two to three times during the service life of an individual. This personal obsolescence is one of the prime causes of generating inertia in excess of what is required, if results in insistence on maintaining the status quo which many a time helps to solve the wrong problem most efficiently. Or putting it in another way the rapidity of changes in technology ie the problem solving know-how—technical, commercial industrial or administrative – makes past experience not only frequently irrelevant but sometimes dangerously misleading.

The characteristics of the workings of an administrative court of the type that Article 216 of the provisional constitution of 1972 mentions includes the requirement of an individual heading an administrative court is that he is not an umpire. He has to go into the propriety of an administrative decision and collect information (evidence) through his rapporteurs. There are two ways of obtaining information the first is by questioning individuals in various departments and by on the spot investigations for which funds are available. Unless information is acquired by an agency immediately remote from the department in questions, committees if for example are appointed by the Federal Council will be at a disadvantage. One could debate matters regarding known problems, but this would not be a source of disclosure about unknown ones. Persons held accountable should never be in a position to dictate which aspects of their business will be examined. But a committee without an investigating staff is not equipped to hold the initiative which it must if anything worthwhile is to be excepted. The head of the Administrative Court would not only look into the legalities of the case but also the motives – political, social or personal – and the onus of proving bonafides will be on the concerned administrative authority. It is subjective satisfaction that is being sought after, so justification of administrative decisions must be face to face. The interpretation of administrative procedures will, therefore, be creative and dynamic and will not be bound by established practice or precedent. The objective is to secure a proper ethical and decent standard of administrative behaviour. The head of such a court, would where necessary go far in extending the vicarious liabilities of the State and award damages. All this is very much in keeping with Islamic injunctions and indeed very close to the approach brought out by Hazrat Abu Bakar when he became the first Caliph, in his address he said that in his eyes the strong would weak and the weak would be strong – the reference is clearly towards

ensuring there would be propriety and equity in arriving at decisions so as to permit the natural growth of society on the correct lines.

Our present procedure for obtaining 'justice' is that the judge listens to the advocates, the litigants talk to them and 'justice' in large measure depends on the skill of advocacy. What is dispensed appears to be hardly relevant, but it is essential that the interpretation of the law be correct. It is not without reason that the late Justice Kayani stated that he was not there to dispense justice but to interpret the law.

It is, therefore, necessary if we wish to improve administrative effectiveness to pay heed in the first instance to the concepts brought out above, wrestle with them and then act on the basis of conclusions arrived at in a planned and orderly fashion which includes acceptance of realistic time horizons. Of course, by far the most important consideration is to move away from the methodology of "colonial thinking" such as evinced in Henry Ford's dictum that his customers could have any colour car as long as it was black (which can work when conditions are stable) and move over to the idea of providing service, which in large, hence complex, systems calls for accepting the dictates of technology, otherwise devolution of powers to the provinces which must ultimately come about will not be truly effective.

WHAT IS PROFESSIONALIZATION OF EXPERIENCE?

Our colleges/universities teach students in the time honoured fashion, making a start from laws, theories or hypotheses (general statements) eg a start may be made with the 'law of marginal productivity' or with the 'law of multiple proportions' with the 'laws of motion' etc etc. This method of instruction involves moving from the general statement to the particular instance. Teachers having made the general statement then give examples to prove that the hypothesis, theory or law enunciated is correct eg a stone dropped from a height of 32 feet does in fact actually take one second, giving the value of 'g'. This method of imparting knowledge, it is hoped, helps to inculcate the faculty of being able to think independently – by relating theory to examples given in the class room.

Considering government service, at least for the higher grades, after a student is selected he or she currently undergoes pre-entry instruction more or less on the college/university lines, may be with a few different subjects thrown in but the main thrust remains the same ie of imparting knowledge, as in a class room.

After completion of pre-entry 'training' and then entering practical life the individual starts to deal with real life day-to-day situations. Not hypotheses, not theories, not laws. In this fashion over the years he/she would be concerned with an increasing series of **particular** events or happenings or cases and so accumulate a large inventory of discrete experiences.

At some stage, after having acquired a sufficient number of discrete experiences, the individual must be taken away from the daily routine, may be for about one or two months, and be sent to a training institution where properly qualified instructors would attempt to help the individual relate his or her discrete or particular experiences to some general statement, which is the same thing as saying that he or she would try to recognize patterns in their inventory of experiences as hypotheses, theories or even laws depending, of course, on the number of observations made etc. This approach closes the loop ie from the general to the particular in the University or College and then form a series of

particulars to the general in the post entry period. This is what professionalization of experience means.

The time that should elapse before the individual is pulled out from his or her day-to-day work and be given such an opportunity would be dependent on a performance appraisal. But from the point of view of being able to assist in development of a professional attitude towards work the completion of the loop between practice and theory would be bridged (and indeed good practice does indeed produce excellent theory!) by providing the necessary insights in this fashion. It is this bridge between practice and theory of which we are so sorely deficient in administrative work in Pakistan, which is another way of saying practice and theory **are** unrelated, therefore, the twain never do nor can meet – the counsel of despair.

The advantages that accrue in gaining such insights helps to provide a very firm basis to the individual in understanding what the scientific, empirical or inductive method means. From such a comprehension, given the interminable complexities in organizational endeavour which increase the higher up the ladder the individual progresses, **the individual would be helped** to move towards and further upwards with a new confidence, now lacking.

The important point is that the individual when faced with new problems with unpredictable outcomes (in certain avenues of efforts, more, in others less) would yet be able to move with a measure of confidence. The crutch providing the necessary assistance being the scientific method. Indeed theory is only of value if it has predictive value.

There are several who find it virtually impossible to “graduate” by creating this conceptual bridge. Such individuals can be recognized very easily by the facility with which they can reel off the contents of a problem solved by them in the past: the executive-by-anecdote type. The **form** or the problem has eluded him, typically in 21 yers service such a person has acquired some 3 yers experience 7 times! This can be called “when I was an Assistant Commissioner in Khulna” syndrome.

A corollary of the above is that it **steers absolutely clear of the specialist/generalist controversy by clearly stating the requirements of an administrator/executive**. It also follows that a professional attitude towards work will only be engendered by remaining at a place of work for a given length of time, say 7 yers, whether it be commercial,

industrial, revenue, law and order, agricultural or administration. This also means the officer in the initial of 7 years will have acquired deep subject matter knowledge of what he is dealing with at the ground level ie where the physical transactions actually take place. After the seventh year of service, subject to aptitude and performance appraisal the concerned individual can opt for a more general career (having professionalized his experience) or remain in his specialism and develop further in that direction.

It would be incorrect to conclude from the above that the only type of training required has to be based on the individual capability of generalizing his real life experience. Far from it, other types of training are yet required whether it concerns use of new materials of construction, new methods of planning, new method of ensuring a sound and equitable tax administration, new method of cost accounting or of setting up a new air defence system.....

**THE QUALITATIVE SHIFT OR WHY SIMPLE WORK
GENERATES NEW PROBLEMS OVER THE YEARS**

It is of interest to have a look at some of our operations. We will observe that in performing work, at least the mid and lower levels of organizations, the results obtained are not the same as, say 20 years ago eg the same type of crane unloads the same type of crates, gunnies or drums at Karachi port, for the crane driver, the recording clerk etc the work is much the same. The railways transport human beings from, say Lahore to Karachi; for the ticket clerk, the engine driver, the cashier etc the work is much the same. Considering electricity distributed to a customer; for the meter reader, the maintenance technician, the complaints clerk etc the work is much the same. Considering pension cases the procedure for retiring employees is much the same yet in the examples given above we are all very well aware of a general deterioration over the years. Why is this so, after all the basic work of shifting levers/recording reading/salaries, cash, receiving/disbursing, recording complaints/records has **not** altered at all ie at the level where the physical transactions actually take place, which is also where the productive work gets done, which is also where the overall successes/failures of an organization are well and truly laid. To put it in another way why is it that the methods used in the 1950s for solving problems are no longer delivering the goods today? Is this not thrown up in many ways, culminating in frustration or even exasperation eg even though the route mileage of the railways has not really increased but through much more intensive use of the facilities over the years new problems have been generated and thrown up that have been so difficult to resolve. Also consider our internal revenue system, under the four heads – excise duty, Sea Customs, Sales Tax and Income Tax, the total annual turnover in 1948 was about Rs 20 crores, today under the same heads it amounts to over a 100 times the 1948 figure, and we are aware short term curative actions at least on three occasions were supposed to have set this system right. Has it? Consider our telephone bills, who does not have bitter experience on that topic? Hardly a telephone subscriber does not

have pungent views yet month after one hopes for improvement....and, of course, several other examples could be given.

An analogy might be some assistance, as this is one way of approaching the unknown from the known. Supposing it is necessary to move stones from point A to point B and time is of no consideration. It could take 30, 40 or even 50 years. A contractor could employ 5, 10, 100, 200 or even 250 labourers to do the job. If the number of labourers were to exceed 250 he would find it very difficult to remember all their names. However, up to this number he could at a glance know at all times who was absent without leave, who was working very efficiently, who was malingering, who was a victim of domestic trouble : : : in dealing with up to 250 individuals, because of the small size of the effort, all problems could be fully and efficiently encompassed by a single brain which ensures perfect knowledge of all the physical transactions. Hence control is as efficient as could be. However, if the same stones had to be shifted in a few months, may be 100,000 labourers would be required, may be 50,000, may be 5,000. If the contractor attempted to use the same methods as he had previously used he would never be able to accomplish the task, in fact it doesn't take much to see that he would very quickly fall flat on his face. He may have to put up a temporary labour colony (with all that goes with it). He may have to run a transportation service (with all the workshop and maintenance and procurement/stocking complications). All the thousands of workers would have to clock in for work (which would require comparatively sophisticated arrangements), may be 3 shifts 7 days a week Again who would report o whom, additionally, there would be problems of hygiene, as also problems of feeding the workers.....

In both the above cases the expected results required are exactly the same, ie stones at point A must end up at point B, yet the problems thrown up in achieving the same results are of a **totally different** nature ie a qualitative shift has taken place in the nature of the difficulties doing **exactly** the same type of work ie shifting the stones. At what stage this qualitative shift took place, as the size of the effort intensified, no one can say but most certainly it did. One can jump across a small nallah in one's stride, but try jumping across a river and that too if one can't swim.

We have to accept that this qualitative shift has taken place in several organized activities in Pakistan and elsewhere. Therefore, it would be logical to assume that this shift would

call for a corresponding shift in our methods/attitudes towards work, towards our methods of training, towards our methods of evaluation, towards our methods of coordination, towards our methods of control, towards our methods of planning, towards our methods of recruitment and above all towards our methods of acquiring information. The reader will readily note that all these activities are concerned with servicing the system to assist the mid and lower levels to take care of the physical transactions and this has not altered as brought out earlier.... This entails the introduction of new support services or staff functions. And last but not least in understanding that the more that power (authority) is concentrated at the top of the pyramid the more self-defeating it becomes. The necessity for decentralization becomes paramount. With decentralization the requirements for control alter because no longer does one person in "carry it all in his head." It is here that acceptance of the value of centralizing information through a Management Information System support service leads to confidence in delegation of authority and not abdication! Information is thus singled out for special consideration because in **all** administrative/executive systems officers are only handling information and making decisions and nothing, but nothing else. Of course, the quality of a decision is directly dependent on the quality and time of receipt of the relevant information.

In an organization where the qualitative shift has not taken place, ie a small organization, the top man can through personal contact keep tabs on all the activities. As such, his subordinates can tunnel upwards information that the top man can check/counter check/validate in good time so that corrective action is taken before the veritable horse bolts from the proverbial stable!

In large organizations, we are well aware, the top man has insufficient time to go into all problems in detail. This has, over a period of time (because of a lack of understanding the qualitative shift leading to the absence of information systems), forced subordinate units to decide **in their wisdom** what information should be tunneled upwards to the boss, for him to make **his** decisions to discharge his responsibility upwards. Giving the subordinates the best of intentions, it is unfair to expect them to do justice in pushing upwards what is really relevant information ie relevant to the requirements of the higher level. It is the top man in each organization who must decide what he requires and this has, in our existing conditions, become a veritably difficult job. Just as a heavyweight

wrestler can lift weights well enough, his ability to design a crane would be suspect. Likewise a good decision maker's ability to **design** an efficient decision making system could be equally suspect. The expertise required for each activity is different. We need to understand this.

NOTE ON TECHNOLOGY AND ADMINISTRATION

It is not for the first time that so many of our institutions/organizations are being criticized for irregularities of one kind or another and if we are to learn from history it appears this will not be the last. In such circumstances what can be done to ensure, or at least minimize the incidence of the increasingly frequent curative measures which might bring about quick-fix results but have invariably resulted in relapses leading to more stringent consequential measures ... a veritable vicious circle. It is necessary to consider a different approach, in that government must take positive action in regard to the technological impact on the social and the natural environment which will lead to employing new ways and means to better cope with problems.

Considering the increasingly quick reaction of individuals to new measures it is clear that the government is innovating far too slowly in developing the capability to govern effectively and efficiently in a complex and repeatedly changing society. In the final analysis it is the people who demand satisfaction in quicker and quicker time in a society of decreasing frustration tolerance.

Do we or others not complain or feel frustrated or both on account of a number of things that happen in our day-to-day life such as:

- the increasing incidence of load shedding;
- buses creating veritable clouds of camouflage (foreign exchange literally going up in smoke);
- the telephone going dead for days on end yet a hefty bill is 'kicked up';
- retired government officials passing away after retirement without getting their pension affairs settled'
- airport facilities not keeping pace with increased air travel;
- agricultural productivity not rising high enough as new hybrid varieties of seed require higher inputs of water and fertilizers and if the water is there the fertilizer is not or if the fertilizer is there the water is not and if both are there pesticides are not.

- passport issuance with reference to problems that should have been foreseen if a proper analysis has been made in the first place.

The above list could be enlarged very easily. It is important to note that after expressing indignation at the state of affairs and even taking some action things after a period time settle down to a lower level of 'positive achievement'.

The old world is familiar with the direct management of THINGS that can be touched, seen or be felt such as stone, wood or iron and that too, in "reasonable" quantities. The world of today is characterized by the need to first: understand and second: to manage complexity such as exists in an air defence system or a tax administration system. This means paying more attention to the METHOD, hence paradoxically immediately less to the specific problem itself – This arises because a qualitative shift has taken place in the nature of problems being exhibited by activities/problems on account of several reasons. This means our approach has to reflect this shift adequately. In dealing with problems of size involving large numbers of individuals or machines or both. Problems thrown up are certainly complex with interlinks or crosswalks that have to be unearthed painstakingly to achieve sound comprehension. All complex problems that have not been understood hence mismanaged, causes similar reactions including frustration – dissatisfaction – anger – inefficiencies – losses – reorganizations – replacements ... KNOWLEDGE is **the** tool for handling all this. But it is easy to weigh a 'thing' unlike attempting to measure or weigh knowledge. Yet we do equate purchase of knowledge with purchasing 'carrots and radishes'. Little wonder the results leave much to be desired! This approach can never move in the direction of effectively reducing frustrations or complaints in our daily work. Even though such problems may be 'solved' on paper but this is not reflected in practice at the level where the physical transactions take place.

As a result, there is little demonstrated demand or evidence for incorporating planned technological change as a regular PROCESS. **Technology being broadly defined as know-how to solve problems all sorts: commercial, industrial, administrative, technical or non-technical.** To change an unsatisfactory way of doing things, it is necessary to understand how that unsatisfactory way functions in detail and to understand the obstacles to change and the potential leverage point(s) that would require preferred

attention to bring about change. The need for systems analysis is indicated. This amount to a “baal-ki-khal” approach which for the computer buff is “binary.”

Technology can not be limited in its use to a mere description of physical artifacts, it encompasses both machines and the PROCESS or METHODS used in the production of goods and services and performance of social functions which includes the PROCESS of administration. It is ‘how we do things’ as well as ‘what we use to do with them’. Therefore, technology embraces not only the numeric lathe, computers and computer software and highway construction, but also the assembly line, analytical statistics, dams design, streamlining of systems and procedures and problem-solving techniques employed.

Attempting to introduce new technologies ie plugging them in as it were without making necessary preparatory changes in the organizational and work-flow aspects of the socio-technical system – which is what the government is – often has adverse rather than positive effects. The necessity of on-the-job general/supervisory/ coordinative training (currently not in vogue) needs acceptance. Technological inventions such as motor cars, electricity, television and the other modes of electronic communication, the production line, process industries and pesticides are profoundly influencing our lives. They have dramatically influenced how we think and provide some of the inputs that go into the public debate.

In Ashby’s terms government must develop “**requisite variety**” ie responses to equal the variety of important functions in its environment. **If systems / governments do not develop requisite variety they simply can not survive.** Rules and regulations governing work flow may have been adequate when laid out originally but may no longer be so eg Foster and Whiffin’s recommendations of 1863 (Queen Victoria’s time) laying down the single entry cash accounting method which is yet followed and we know with what results. Our education system is also not taking note of new inputs, something needs to be done about it considering the time constant or horizon is much longer than the tenure of those doing something about it.

Technology generates changes in society and the natural environment that cause governmental responses that though adequate at one time are totally inadequate at another In order to steer, government must continually increase its repertoire of responses relating

to changes in its domain. It seems imperative that government attempt to supplant the current methods of incorporating change with more systematic and systemic methods. The old, haphazard methods representing 'tradition' are just not working adequately and they never will. This means creating a predictable process of information flows, currently missing. First, government must develop a capacity to effect 'anticipatory responses' which can be contrasted with the more typical reactive response that currently characterizes our contemporary institutions – keeping one or two steps behind instead of ahead of problems. This follows from a typical law and order non-developmental 'tradition' characteristic of colonialism.

Technology can be employed by government to provide existing services more efficiently and effectively. Almost without exception, our present "needs" were conceived within an outdated frame of reference to provide services now. The list consists mainly of devices and items that would not help to make major differences in how services are provided but peripherally or incrementally could possibly make things a little easier or cheaper. There is need for such devices, but there is also a real need to apply technology to make qualitative changes in how current functions are performed and enable government to provide existing services far more efficiently. Consider the Qualitative Shift Few analysis have been able to document economies of scale in government for public utilities and comparable capital intensive services.

The basic reason for so few scalar economies is that the **government tends to employ the same methods for providing a service no matter what their size, no matter whether the processes used are simple, complex or hi-tech hence without regard to what might be.** As organizations grow in size (even doing the same work) a qualitative shift takes place in their problems which amongst others must also be reflected in their organizational structures as well as information flow patters. **Our large organizations unfortunately are simply replicas of small organizations or vice versa eg WAPDA on the one hand and several small 'autonomous' bodies on the other.** As wages and salaries increase without corresponding increase in productivity, costs for providing government services also increase. The need for multidisciplinary analysis as systematized in the early stages of World War II, in the first instance, in the military establishment is required. The lessons learnt were transferred to the civil side after the

war ended. This interchange between the civil and military establishment continues apace in the world.

EMPLOYING TECHNOLOGY TO COPE WITH THE EFFECTS OF TECHNOLOGY

The question is of how the government should employ technology to cope with the effects of technology, of which the large or increasing size and complexity of organisations is the most important manifestation, this involves.

- monitoring technologically introduced changes in environment, predictable reporting systems are required, currently absent,
- assessing the likely consequences of technological inventions involving a multidisciplinary approach.
- regulating innovations that may have widespread or long term effects including both control and dissemination;
- identifying problems beyond the individual or collective control the government.

The above will lead to the productive (it could be disruptive) use of electronic data processing or computerization. Computerization ie utilization of systematic ways and means also enables government to do things that were not possible before. Systems simulations have been developed that enable governments to test the likely impacts of policies **prior** to implementation. If policy decisions are wrong no computer can be expected to compensate for bad judgement.

INNOVATION

Government needs a greatly enhanced capacity to innovate in its organizational and institutional forms, in its processes for decision making and programme execution, and in its capacity to innovate in the devices and mechanisms it employs in providing services. Just consider the benefits that can accrue if the accounts coding of development projects were to be the same as when on completion it becomes non-developmental truly the PCVs could be made out! The present secretariat/field unit relationship needs a link mechanism that is currently missing. This will help bring about the wished for lightening up of the coordinative looseness that is evident -- and is reflected in our qualitative judgements in administrative process. A pre-requisite of innovation is an awareness that things **could** be different and better than they are: an awareness that frustration – creating

problems **do** exist, and that existing methods **are** inadequate to provide 'acceptable' solutions. Till such time as government personnel comprehend that the process of providing a service is not an end in itself but it is an activity oriented towards alleviating public problems, innovation simply cannot take place. Senior officers need orientation exposure, middle ranking training and juniors be made to apply techniques. There is a need for a capacity to identify problems in internal operations as they relate to external needs. Innovation is a process involving drawing analogies between apparently dissimilar phenomena. It requires the **ability to step out** from what is being done to think about what might be done. One cannot discuss innovation without bringing into consideration the essential elements of experimentation and evaluation which includes all that must go with experimentation and evaluation.

TECHNOLOGY TRANSFER

Technology transfer is in fact innovation. Creative thinking is helped to emerge by a free flow of information – currently hoarded, because of our tradition ie colonial heritage. Technology that has developed in the West has come about on account of innovation and strangely enough our attitudes are yet frozen – how can technology transfer take place under such conditions? Technology transfer is, therefore, the application of technologies developed elsewhere which are modified after a “baal-ki-khal” analysis and then applied to appropriate comparable situations.

Technological transfer **is** a complex process. It requires imagination and entrepreneurship – in an administration: 'organizational entrepreneurship' is in many ways unsuitable and will not deliver the goods. An essential link mechanism is missing ie the support services that large systems to work efficiently are dependent on. It requires that someone draw an analogy between what has been employed in one situation and how it may be employed in another – often dramatically different situation, this calls for an appreciation of the difference in the 'form' and 'content' of a problem. It does seem appropriate, however, that there may be multiple points of exchange of technological transfer ie many institutions ought to be involved, including the universities, provincial and federal agencies and possibly others only when, our law and order mentality undergoes change. The capacity must be developed and it must be tied into the information channels of government, which in themselves need being modified. Such coordination will certainly

not be obtained through telephone calls, meetings or conferences, given the existing operating systems, which show no sign of change. A PROCESS has to be created which currently does not exist.

Once innovations are made it is important that information about their application be disseminated so that innovation be replicated in other organizations with an understanding of what has happened ie learning from our mistakes. Without the capacity to innovate **prior** to crises the utility of assessing technological impact is diminished, the converse is also true. It would appear, therefore, that government must develop the capabilities described above approximately simultaneously in a reasonably systematic and planned fashion, this will require plenty of post-experience training and the revamping of the course work on our training institutions which are currently involved in away-from-the-job executive horizon broadening in the class room.

REQUIREMENTS

Successful attempts of innovation require an institutional setting sympathetic or conducive to change. The requisite conditions are given below. Innovation may be planned or accidental. Developing the government's capacity to **introduce** new technologies and the actual introduction of such technologies will require **planned** change if government is to know in advance the likely consequences of such change. Five conditions are identified as requisite to planned change because technology transfer to be effective predictates a qualitative shift in our METHODS which will affect the operating systems and procedures in that control will be possible:

- dissatisfaction with current status and providing positive incentives to change, decision makers must be largehearted enough to accept they are not know-all;
- appreciation of alternate possible states of affairs;
- provision of adequate resources for research and development and;
- development of innovative skills;
- taking care of personnel in the pipeline, through grandfather clauses ie an essential humanitarian approach.

There must be a belief that the current system can be modified for the better or that systems can be made more effective. Those who are to make a change must have the **capacity to step out** from their current roles to view the situation **from other**

perspectives, organizational entrepreneurship must be encouraged. Resources must be available for a variety of new activities, for formulating alternatives, for assessing benefits and costs, for design and experimentation, for transition and for evaluation. Development and change can be expensive particularly when there is risk of failure. In any case if we do not recognize the necessity for managing change we will continue to flounder from one crisis to another.

Finally those who wish to effect the change, the technological transfer, or the system innovation must have innovative skills. Pay scales for special expertise will require special attention. They must perceive systems in government as **socio-technical systems** – systems that require changes in human perceptions and behaviour and not merely changes in hardware. The unhappy situation is that the pre-requisite for successful planned change or innovation do not occur in government with sufficient regularity to ensure continual upgrading of its capacities to deal with change over which it has no control. There are behavioural and institutional conditions in government that mitigate against development of such conditions It is important to identify and to analyze these obstacles to change, so that appropriate leverage points can be identified for incorporating change as a way of institutional life. These obstacles then can be dissolved or minimized. The modalities can be worked out by those professionally competent to do so. The primary obstacles are: career patterns, role perception, resource allocation processes, reward structures, organizational structures and institutions, process of administrative or executive accountability and above all the present operating systems and procedures governing workflow at the lower level where the physical transactions actually take place.

Technology creates changes in social and natural systems for which government has major responsibilities. The most important and appropriate application of technology to government is to help government develop a set of responses and mechanisms adequate to coping with a continually changing environment. Most frequently technological innovations in government are aimed at marginal improvements which are **conceived within** the frame of reference of the **existing way** of doing things.

This leads to what has aptly been described as “disjointed incrementalism”. Technology holds the promise, however, of enabling government to perform existing functions more

efficiently and effectively while **also** enabling them to perform adequately in the future or perhaps more importantly to anticipate problems that do not need to be allowed to come into existence – an ounce of prevention is indeed worth a pound of cure.

In summary the government must incorporate change as a regular part of its administrative process. This is where the training function will need development and it can be done. Such continual innovation, however, requires positive incentives for change, perceptions of what may be possible, resource availability and innovative skills.

To effect lasting change in the government process-for-change and for specific technological innovation themselves those concerned must direct their effort at critical leverage points. Appropriate conditions must be created and key obstacles neutralized. Opportunities and incentives must be provided to create a demand for change in the systems to be changed.

Since all this amounts to efficient techno-administration the method of a introducing modern management aids deserves much more than ordinary attention. To manage efficiently any large organization: can it be done without use of new the vast array of support service functions available today? The answer unfortunately is NO! Should we not, therefore, pay heed to this and then pause and reflect before attempting to achieve our objectives because we are using hierarchies, methods, hypotheses, formulate or algorithms which do not belong to today and tomorrow but to the past?