

INSTITUTIONAL STRENGTHENING IN EGYPTIAN DEVELOPMENT AID PROJECTS ^[1]

Mirjam M. Walbeek ^[2] and Willem F. Vlotman ^[3]

ABSTRACT

In recent years Dutch aid projects have focused more on institutional strengthening. The overall impact of this type of aid has been limited. This paper explores possible reasons for this. In Egypt, it appeared to be difficult to make significant changes in the institutional setting. Main constraints were the low salaries, recruitment and personnel policies and the organisational culture within the government. Another factor that may have played a role is inadequate recognition of cultural backgrounds of the international consultants advising in Egypt. This is explored using Hofstede's and Trompenaars's typologies of culture and their effects on management. Maslow's Hierarchy of Needs, as applied to the environment of institutional strengthening, is also considered. Adjusting an organisational culture to improve efficiency and sustainability of the organisation is a long and difficult process and should not be seen as an extension of traditional technical assistance aid projects, but rather it should be implemented as a dedicated long-term project. A major finding is that short-term consultancies may only be effective for idea generation, and not as instruments for implementing change management. Managerial capacity building should be a long-term activity with gradual change, particularly in government settings. Recognition of organisation culture in light of trans-national cultural typologies by Hofstede and Trompenaars, as well as, acceptance of the most pressing needs of the target group as the responsibility of one and the same financing agency are found lacking in traditional Development Aid.

Keywords: Institutional Strengthening, Organisational Development, Capacity Building, Development Aid, Technical Assistance, Human Resources Management, Culture, Hofstede, Trompenaars, Maslow.

1 INTRODUCTION

Egypt is one of the biggest recipients of foreign aid. Net disbursements of Official Development Assistance (ODA) have averaged more than US\$ 2200 million per annum during the past 20 years. Bilateral aid is the most important aid category, accounting for two-thirds of the total aid flow over the period 1970-94. It increased steeply from the middle of the 1970s, after Egypt severed its ties with the Soviet Union and started its Open Door Policy, strengthening relations with the United States and other western countries.

The Netherlands is one of the smaller bilateral donors to Egypt, contributing about Dfl. 960 million between 1975 and 1996, somewhat less than 1 per cent of all aid to Egypt (NEDA, 1998). The Netherlands started its development assistance to Egypt in the mid-1970s with the initial focus on improving the infrastructure. During the 1980s, the attention concentrated on technical assistance in the drinking water, sanitation and health sectors. Eighty percent of the total disbursements during 1975 - 85 involved the supply of commodities, while the remaining twenty percent was for technical assistance. The technical assistance component increased to half of all aid in the mid 1980s and to roughly two-thirds in the 1990s (NEDA, 1998). At first technical assistance was merely technical on-the-job training, assuming that the improvement of technical expertise of key institutions would result in organisations that functioned more efficiently. Gradually, projects gave more attention to structural problems in operations and maintenance and to general organisational and management issues. This type of aid can be characterised by greater participation by the recipients, a concern with process, institutional development and capacity building. The idea was that when the donor withdraws, the organisation is able to maintain a high standard independently.

Typical of these latter type of projects are the Drainage Research Projects; DRP1 (1994- 1998) and DRP2 (1998 – 2001) which had respectively a 50-50 and 75-25 division of institutional strengthening versus technical assistance components (Walbeek et al. 2001). The technical assistance components concerned guidance for research at drainage pilot projects in the Nile Delta. The institutional strengthening activities concerned strengthening of the operation and management of the Drainage Research Institute (DRI). Although the enhanced technical capabilities acquired were substantial and appreciated (Soussan, 2000), the same could not be said of the institutional strengthening and organisational development aspects. What may have been the possible reasons for this is explored in this paper.

Before going into details, typical terms such as "Institutional Strengthening", "Organisational Development", "Technical Assistance" and "Capacity Building" are put in perspective. Institutional Strengthening (IS) can be defined as the introduction of new methods and methodologies to an existing organisation with the purpose of improving functioning of the organisation. Organisational Development (OD) is the enhancement and strengthening of an existing management structure to operate more effectively. OD is defined as an intervention strategy, using group processes to focus on the whole organisation to bring about planned changes.

Technical Assistance (TA) is seen as the whole range of activities designed to develop human resources through improving the level of skills, know-how and productive aptitudes of the target population (NEDA, 1998). Capacity Building is a fashionable term with international NGO's but each organisation, and each person within those organisations seems to have his or her own interpretation as to what the term entails. In this paper we consider it as an all-encompassing term for training of, and education in, both technical and managerial competences.

2 INSTITUTIONAL STRENGTHENING AND ORGANISATIONAL DEVELOPMENT AT DRP1 AND DRP2

One of the first goals of DRP1 was to map the existing organisational structure of DRI with the help of various consultancies, and to discuss the desirable future structure with the staff. The expatriate consultants on the team came from Belgium and the Netherlands, and staff of the local consultancy firm had received extensive training in Germany. The initial input of the consultants and the implementation of their advice ultimately resulted in the DRI Handbook, which contained a brief description of the old DRI organisational structure, an extensive description of the desired (partially) new structure, and job descriptions. The desired organisational structure included DRI's mission statement as mandated by various Presidential Decrees. For each department and unit the mission, tasks and responsibilities were elaborated, based upon group exercises.

After completion of strategy (mission statements) and theoretical structure of the institute, the project concentrated on creating the enabling environment to meet the mission of DRI and the objectives of the project. This was done with the help of local consultants, and an Arabic version of the Handbook was used for on-site training. Establishment of new departments and staffing them was found to be very difficult due to financial and government hiring policy constraints. The project found itself limited to development of primarily electronic tools for a Management Information System as well as a Data Information System (Gamal El Din 2001).

A manual for a Staff Performance Appraisal System followed. This was the result of a year of intensive consultation with DRI staff on the criteria to be considered. The system was rather unique in that it is the first documented effort of establishing a fair and comprehensive staff performance appraisal system in the Egyptian context. It considered 90% of the concerns brought forward by the staff (Walbeek et al., 2001). However, this made the system rather complex and it was considered a challenge for DRI to simplify the system for quarterly use without losing the ability to consider all aspects raised by the staff. Several areas were identified as requiring further development: guidelines for peer review of technical publications; guidelines to judge research standards; and, guidelines for progress reports. The appraisal system was only partially implemented during the course of the project. The reasons for this were the difficulty in establishing the Human Resources Department that could manage the appraisal system and handle the data requirement of the appraisal system.

One of the main achievements of the institutional strengthening and organisational development activities was that a broad section of the DRI staff has become aware of institutional, management and personal considerations in day-to-day management of DRI. The project was completed with a final workshop specifically on the Institutional Strengthening and Organisational Development (IS&OD) aspects (Abdel Gawad et al. 2001). At the time of project completion there was a sense of under achievement of IS&OD aspects by the expatriate staff and, to some extent, the local staff as well. This may have been caused by the complexity of transforming the Institute as outlined in the Handbook, as well as frustration with the restraints put on the execution by external influences. The external factors were primarily those imposed by the government system within which DRI has to operate. A fallback to, and preference for, old routines was evident. Another finding was the limited usefulness of short-term consultancies (whether by local or expatriate consultants) and the need for continuous long-term on-the-job training. Advice and recommendations were extensive but short on practical application and implementation options. The consultancies served as appropriate focal points and generated strategies for change, but proposed strategies were so far beyond the local staff experience and competences that adequate implementation was not possible. Constraints included limited finances for change and an inadequate number of staff qualified in the identified new management tasks. It may also be that there was an inadequate recognition of cultural backgrounds of the various project team staff. Therefore in Section 4 the theories of Hofstede and Trompenaars are explored.

It should be noted that a recent visit to the Institute two years after completion of the DRP projects showed a marked change in the atmosphere at DRI. Although DRI is still faced with low salaries and few externally funded projects, there was a sense of optimism and pride in the Institute. DRI seemed reborn; people appeared content in the environment in which they were working. They had new air conditioners, smart looking sun blinds, walls were painted, offices clean, and probably a range of other small improvements not apparent at first glance. This improvement is attributed to satisfaction of small but important basic needs as is described in Section 4 under Maslow's theory on Hierarchy of Needs.

3 THE EGYPTIAN PUBLIC SECTOR AND INSTITUTIONAL STRENGTHENING

The most obvious characteristic of the Egyptian public sector is its immense size compared with other countries (see Table 1). The government has grown tremendously in the past four decades. On the eve of the 1952 Revolution, there were roughly a quarter of

a million civil employees among all the ministries and agencies of the Egyptian government. By 1972 this number had jumped to 1.2 million, and in 1980 slightly over 3 million people were working for the government (Mayfield, 1996). In the beginning, this expansion could be explained by an extension of the government functions into areas unknown under the monarchy. However, the continued growth of the bureaucracy was a clear sign of the failure of the Open Door Policy to solve the country's economic problems (El-Sayyid, 1996). Even now, despite the liberalisation, the public sector still plays a dominant role in the economy, accounting for over one-third of total Gross Domestic Product (GDP) (EIU, 1999) and employing about one third of the labour force (World Bank, 2000).

This large number of government employees is an attempt of the government to absorb the unemployed, particularly the youth (El-Sayyid, 1996). The government has been committed to placing all college graduates in some type of government position regardless of background, interest or need. This policy was amended and a three to four year waiting list was introduced, and usually such jobs were only made available in the rural areas (Mayfield, 1996). By 1999, the waiting list had increased to 11 years (EIU, 1999). The government has plans to reduce government employment by some 2% per year, but maintain the size of education and health ministries (World Bank, 2000). Especially public enterprises will be made to downsize. It was initially estimated that labour redundancies in public enterprises was around 10%, but in practice this figure proved to be closer to 35% (Abrahart et al., 2002). This puts pressure on the creation of private sector jobs, especially in the tertiary sector, including activities such as trade, banking, services related to production, state administration and social services. (Hoodfar, 1999). More than half of all of new employment has come from an expansion of the informal sector (Abrahart et al., 2002).

Table 1 Government employment (central and local government administration, teaching and health employment) in the early 1990's.

Government employment, early 1990s	Percentage of total population	Percentage of total employment
Africa	2.0	6.3
Asia	2.6	6.7
Eastern Europe and former USSR	6.9	16.0
Latin America and Caribbean	3.0	8.9
Middle East and North Africa	3.9	17.5
Egypt	6.2	24.7
Industrial Countries	7.7	17.2
Total	4.7	11

Source: Shiavo Campo, 1997; Shiavo Campo, 1998, EIU, 1999

Despite the planned downsizing, Egypt's public sector employment continued to grow at an annual rate of 3.7% in 1986-95, but the private sector grew by only 1.9%. Overall employment growth in Egypt was only 2.6% annually, slightly below the annual growth rate of the total labour force (2.7%, Tzannatos, 2002). In 1999 Egypt's rate of job creation was 400,000 a year, showing a deficit of 100,000 jobs (EIU, 1999). In 1996/97, the national unemployment rate was officially at 8.8%, but independent estimates were considerably higher, at about 11-15%, with the majority of unemployed under 20 years of age. Under-employment is estimated to affect one third to half of all workers.

3.1 Low salaries

The majority of low and middle ranks of employees in government and the majority of the public sector workers have a monthly income not exceeding US\$ 175 (Amin, 1997). A junior engineer in the Drainage Research Institute can expect to take home between US\$ 60 and US\$ 150 per month as salary, including allowances and incentives or bonuses. Even compared to countries whose per capita income is significantly lower than Egypt's, compensation is low (Table 2, Merrey, 1998).

To overcome the low salaries, many civil servants have a second job. Palmer et al. (1988) found 89 percent of their sample of government employees admitted holding second jobs, and 84 percent of those with second jobs worked three to five hours per day in these supplemental positions. These positions are running a small local shop; selling vegetables in the local market; operating a taxi; or working as a doorman or domestic servant. Workers often earned more from these extra economic activities than from their primary occupation (Hoodfar, 1999). A few lucky ones found a second job in the same field of expertise and competence as their main job.

Staff working for aid projects often made longer hours than their colleagues not working on projects, resulting in some cases of loss of the second income. Dutch Aid projects started using incentives in lieu of the loss of the second job and this became the norm rather than the exception. Other countries used different modalities of compensation but with the same effect. To avoid too much interference in personnel issues, generally a lump sum was paid to the management of the organisation for distribution as incentives. As a result, these incentives were seen as an integral part of the salary and not as a reward for extra performance.

Over time working hours for local staff were more according local standards, and many of the local staff had second jobs in the evening.

Table 2 Compensation of engineers in the Ministry of Water and Irrigation, and GNP per capita in Egypt and selected countries (percent of Egyptian).

Country	Entry level %	Upper level %	GNP/capita %
Pakistan	486	383	66
India	470	260	54
Sri Lanka	293	194	82
Bangladesh	230	198	36
Egypt	100	100	100

Source: Merrey, 1998

3.2 Human Resource Policies

Aside from the low compensation, there was no observable link between compensation and performance. Staff evaluation is generally highly subjective, based principally on the attitude of the boss toward the subordinate. It tends to be personality-oriented, in that the identification of poor performance is apt to be associated with those things the superior believes are negative qualities, such as bad attitude, lack of initiative, poor relationships with others, etc. (Mayfield, 1996).

Promotion is based on seniority rather than on performance. In order to ensure that promotions are given in a fair and impartial way, the administrative system is divided into several categories (Figure 1).

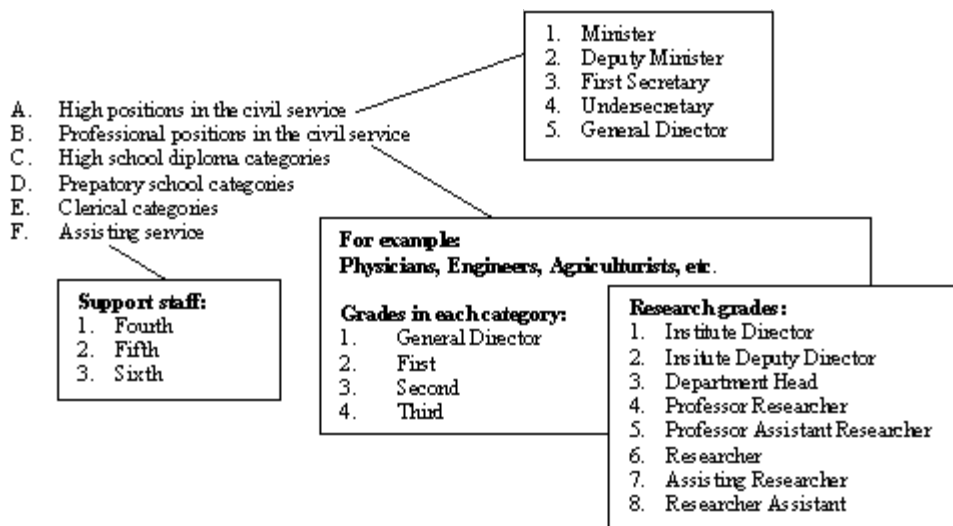


Figure 1 Categories and grades in the Egyptian Civil Service.

After: Mayfield (1996); DRI Human Resource Database (Gamal El Din 2001).

All individuals within the category are subject to the same procedures and sequences for promotions, salary increases, transfers and changes. Once an individual is assigned to a category it is not possible to shift to the next category until all individuals ranked higher have first been promoted (Mayfield, 1996). Of course this system has clear disadvantages. In more recent years, experience and performance received more consideration in promotions, especially for senior engineers. Promotions from Level 3 to Level 2 are based 75% on seniority and for Level 2 to Level 1 seniority counts 50% (Merrey, 1995).

Palmer (1988) found that educational level had a greater impact on productivity, innovation and flexibility than either foreign or local training programs in the Egyptian civil service. When education was held constant, training programs were found to contribute only modestly to the productivity of less educated officials, and not all to those who are better educated. Also in the Dutch Development Aid it appeared that training did not make a significant difference. Instead, tailored, in-country, human resource development activities were generally found to be more effective (NEDA, 2000).

The educational background of the employee is a determining factor for promotion and recruitment policies. For example, in the Ministry of Water Resources and Irrigation, top positions are only available to civil engineers. As a result other engineers and specialists feel little loyalty to the Ministry/Minister and this relates to issues of family structure (Hofstede 1991 and Trompenaars 1993, see Section 4). Many of these professionals complain about their lack of career prospects, lack of influence and prestige, and are bitter about not being invited to the large number of workshops held under donor-funded projects (Merrey, 1998).

Our experience in the Drainage Research Institute showed that it was extremely difficult, if not impossible, to attract personnel in the field of human resources and marketing, due to government regulations and the large difference in remuneration between government and private industry. Rather (civil) engineers already in government service with an interest in these fields received additional training (Walbeek et al. 2001). Their additional qualifications did not necessarily result in immediate benefits to the participants of the training, but potential advancement was used as incentive to participate.

4 THEORIES OF CULTURE AND INSTITUTIONAL STRENGTHENING

National and organisational cultures have a major effect on the management of organisations. This has been accepted since the early work of Hofstede in the seventies. Trompenaars developed a more elaborate model of cultural effects on management. Both models have applicability to project management in Development Aid. In addition to the two models on culture characterisation, also Maslow's Hierarchy of Needs is thought to have a bearing on the functioning of staff on aid projects.

4.1 Hofstede's Five Dimensions of Culture.

Hofstede and others derived a 5D model to describe cultural difference at national level based on a survey held amongst IBM staff at its worldwide subsidiaries (Hofstede 1991, Hofstede and Bond 1988). Initially the study involved 40 countries and had four dimensions. Others have replicated the popular study and data are based on additional research and on estimates using correlated phenomena now covers 90 countries and 5 regions (ITIM 1993). A fifth dimension (CDI) was added by Hofstede in the mid 80's. The five dimensions are:

1. Power Distance (PDI): extent to which the less powerful members of institutions and organisations accept that power is and should be distributed unequally. In other words people in high power distance cultures are much more comfortable with a larger status differential than low power distance cultures;
2. Uncertainty Avoidance Index (UAI): degree to which members of a society feel uncomfortable with uncertainty and ambiguity, and support beliefs promising certainty and institutions protecting conformity. Cultures which ranked low (compared to other cultures), feel much more comfortable with the unknown. As a result, high uncertainty avoidance cultures prefer formal rules and any uncertainty can express itself in higher anxiety than those from low uncertainty avoidance cultures.;
3. Individualism Index (IDV): degree of preference for loosely knit social framework in which individuals are supposed to take care of themselves and their immediate family only. Individualist versus collectivist cultures are also characterised by respectively high vs. low per capita GNP, restrained vs dominant role of government in the economy, identity based on individual vs. group, and education increases economic worth vs. education gains entry to status groups (Hofstede 1991 paraphrased in Smotherman and Kooros 2001);
4. Masculinity Index (MAS): degree of preference for achievement, heroism, assertiveness and material success. This dimension tends to draw (unwarranted) criticism for its name alone. It basically refers to expected gender roles in a culture. The cultures that scored towards what Hofstede referred to as "masculine" tend to have very distinct expectations of male and female roles in society. The more "feminine" cultures have a greater ambiguity in what is expected of each gender;
5. Confucian Dynamism Index (CDI): degree of importance attached to perseverance, ordering relationship by status, thrift and a sense of shame rather than to personal steadiness and stability, protecting face, respect for tradition and reciprocation of greeting, favours and gifts. Also referred to as Long-/Short-Term Orientation of Cultures (Hofstede 1991 paraphrased in Smotherman and Kooros 2001).

Nationals from numerous nations have been intimately involved in Egypt over the years. Influences of the French, British and Russians have shaped the government organisations. Since the Open Door Policy, nationals from the USA and many of the European countries have impacted to some extent the way organisations operate. Personal experience of staff working on projects also determines the modus operandi of projects. The selection of countries in Table 3 reflects the nations that have relevance, from cultural point of view, in the DRP projects.

It is interesting to observe that some of the major donors since Egypt's Open Door Policy (Germany, Great Britain, USA, and the Netherlands) have scores that are on the opposite end of the scale in almost each category. Egypt and France have a high score in Power Distance (80 and 68), while the others score 35 – 40, implying a much greater acceptance of the top down authoritative style of management in Egypt and France than in the other countries, where performance is much more important and organisational structures are much flatter. Hence consultants from these countries will tend to recommend structures with delegation of authority. Egypt has a low individualism Index of 35, while the other countries range between 67 and 91. This is also confirmed by Trompenaars typology of a family style culture (see section 4.2).

Table 3 Hofstede's values of dimension describing national (group) culture based on IBM study.

Country or Region	PDI Score	IDV Score	MAS Index	UAI Score	CDI Score
REGIONS ORIGINAL IBM STUDY					

Arab Countries	80	38	53	68	-
East Africa	64	27	41	52	-
West Africa	77	20	46	54	-
COUNTRIES FROM THE ORIGINAL IBM STUDY					
Belgium	65	75	54	94	-
Canada	39	80	52	48	23
France	68	71	43	86	-
Germany FR	35	67	66	65	31
Great Britain	35	89	66	35	25
Netherlands	38	80	14	53	44
Pakistan	55	14	50	70	0
USA	40	91	62	46	29
COUNTRIES FROM LATER STUDIES AND ESTMATES (ITIM 1993)					
Arab Emirates*	90	25	50	80	
Egypt	80	35	40	70	
Poland*	55	55	70	60	
Russia & Ukraine	95	47	40	75	
Saudi Arabia	95	25	60	80	

* - numbers are pure estimates based on correlated phenomena; the others numbers have some research base.

Sources: Hofstede (1991); ITIM 1993.

The masculinity factor shows more variation amongst the five countries considered in this paragraph, with the Netherlands being exceptionally feministic oriented, implying great emphasis on gender, ecological and social issues. Incidentally, these issues are high up on Maslow's Hierarchy of Needs described below. The Dutch feministic score is clearly reflected in Dutch Development Aid policies of "for the poorest of the poor and women in development". Germany, USA and Great Britain on the other hand score higher than Egypt and this may be evident in higher emphasis on project oriented working (Logic Framework approaches, benchmark performance, etc). As far as risk taking and uncertainty avoidance Egypt scores highest, implying perhaps a tendency for slower decision making at various management levels.

4.2 Trompenaars Seven Dimensions of Culture.

Another benchmarking typology of cultural difference that needs to be considered in cross-cultural business management and to some extent is seen as an extension of Hofstede's work is presented by Trompenaars (1993, Trompenaars and Hampden-Turner 2003). Trompenaars considers seven dimensions of culture:

1. Universalistic/Particularistic cultures: Universalism vs. particularism relates to judgement. On the one end of the spectrum lie cultures that adhere to universally agreed upon standards. At the other end are cultures whose obligations lie in the people they know. People in universalistic cultures share the belief that general rules, codes, values and standards take precedence over particular needs and claims of friends and relations. In a universalistic society, the rules apply equally to the whole "universe" of members. Any exception weakens the rule;
2. Individualist/Collectivist cultures: Individualism vs. Communitarianism. An individualist's primary focus is on self and any contribution to the group is their choice. A collectivist places emphasis on duties and obligations to their in-group. Therefore in a predominantly individualistic culture people place the individual before the community. Individual happiness, fulfilment, and welfare set the pace. People are expected to decide matters largely on their own and to take care primarily of themselves and their immediate family. In a particularistic culture, the quality of life for all members of society is seen as directly dependent on opportunities for individual freedom and development. In the collectivistic culture the community is judged by the extent to which it serves the interest of individual members;
3. Neutralist/Affectivist Cultures: Neutralists believe the nature of their relationships with others should be objective and detached, that emotions confuse the issues. Affectivists; however, believe that all relationships with others are human affairs and that people should express their feelings openly. In a neutral culture people are taught that it is incorrect to show one's feelings overtly. This doesn't mean they do not have feelings, it just means that the degree to which feeling may become manifest is limited. They accept and are aware of feelings, but are in control of them. Neutral cultures may think the louder signals of an affective culture too excited, and over-emotional. In neutral cultures, showing too much emotion may erode your power to interest people;
4. Specific/diffuse cultures: Specificists believe relationships with others should be explicit, delineated and regulated as in a contract. Diffuse oriented people emphasise the real and personal contact of the whole person in a relationship. Closely related to the neutralist reason and the affectivist emotion, this cultural dimension depicts the engagement of others in specific or diffuse areas of life and personality levels;
5. Achievement/ascription cultures: Achievement aligned people believe that one's worth is dependent upon their capabilities,

recent accomplishments and past record. Conversely, ascriptionists attribute status through social position, gender, age and association with important others. Ascribed status refers to what a person is and how others relate to his or her position in the community, in society or in an organization. In an ascriptive society, individuals derive their status from birth, age, gender or wealth. A person with ascribed status does not have to achieve to retain his status: it is accorded to him on the basis of his being;

6. Time orientation in cultures: sequential vs. synchronic cultures: Time can be structured in two ways. In one approach time moves forward, second by second, minute by minute, hour by hour in a straight line. This is called sequentialism. In another approach time moves round in cycles of minutes, hours, days, or years; synchronism. Problems that arise through the passage of time relate to whether the society places more importance on what has been achieved in the past versus what is planned for the future or what was accomplished yesterday as opposed to today. People structuring time sequentially tend to do one thing at a time. They view time as a narrow line of distinct, consecutive segments. Sequential people view time as tangible and divisible. They strongly prefer planning and keeping to plans once they have been made. Time commitments are taken seriously. Staying on schedule is a must. People structuring time synchronically usually do several things at a time. To them, time is a wide ribbon, allowing many things to take place simultaneously. Time is flexible and intangible. Time commitments are desirable rather than absolute. Plans are easily changed. Synchronic people especially value the satisfactory completion of interactions with others. Promptness depends on the type of relationship;
7. Internalist/Externalist cultures: Externalist cultures view nature as a force more powerful than the individual, a force to be feared or emulated. Internalist societies see the major force in life, the origins of vice and virtue as residing within the individual. Internalistic people have a mechanistic view of nature. They see nature as a complex machine and machines can be controlled if you have the right expertise. Internalistic people do not believe in luck or predestination. Externalistic people have a more organic view of nature. Mankind is one of nature's forces, so should operate in harmony with the environment. Man should subjugate to nature and go along with its forces. Externalistic people do not believe that they can shape their own destiny.

The USA and Germany are regarded universalistic, while Russia, Indonesia and Malaysia for instance are on the particularistic end of the scale (Trompenaars 1993 paraphrased in Smotherman and Kooros 2001). The USA, The Netherlands and the United Kingdom are Individualistic while Egypt, France and Pakistan are collectivistic countries. When neutralist and affectivist are considered a split amongst western countries is apparent: United Kingdom and The Netherlands are classified as neutralist countries, while France and the USA are considered affectivist. The Netherlands, United Kingdom, Germany and the USA are specificist countries, while Egypt is regarded as a diffuse culture. Achievement versus Ascription cultures resulted in the USA, United Kingdom and Germany on one end of the scale and Egypt, and France on the other. Finally, Internalist vs. Externalist resulted in the USA, and Germany as internalist type of culture characterisation, versus Egypt being more externalistically oriented.

When using Trompenaars cultural dimensions much of the Egyptian government can be characterised as a family culture. The family culture is personal, with close face-to-face relationships. The experience in DRI showed that employees appreciated these family-oriented relationships, although it was acknowledged that it also causes a weakness, as much time is spent on personal affairs (Shaalan, 2001). At the same time, a family structure is very hierarchical. It is a power-oriented corporate culture in which the leader is regarded as a caring father who knows better than his subordinates (see high PDI score in Table 3). In such a culture, it is obvious that delegation is very difficult. Moreover, family cultures have difficulty with project group organisations, where authority is divided/delegated (Trompenaars, 1993).

4.3 Maslow's Hierarchy of Needs.

The essence of Maslow's theory, known as the Hierarchy of Needs, is that he sought to explain why people are driven by particular needs at particular times (Maslow 1954). Why does one person spend considerable time on personal safety and another on pursuing the recognition by others? According Maslow, human needs are arranged in a hierarchy (Figure 2) from the most pressing to least pressing. People will satisfy their most pressing needs first and when they are satisfied they will address their next most pressing need, and on it goes until the needs of self-actualisation are reached.

Depending on local circumstances one may progress or regress in fulfilment of needs. For instance, after the war in Iraq, the people of Iraq are mostly concerned with the first two levels, but so are the coalition forces. A starving man will not take any interest in the happenings of the art world or be concerned about the ecology. Maslow's Hierarchy of Needs has been applied to help explain people's reactions in marketing, HRM, education, social services, counselling, and asylum issues. It also applies to Development Aid.

An interesting aspect of Development Aid is that people from a group that can be classified as having reached to the top of the pyramid in their home country, are addressing the needs of those at the base of the pyramid in the country of the project and have to place themselves in their shoes. This is a mismatch that can cause management problems when the objectives of projects actually aim at jumping several levels up the Hierarchy of Needs without satisfying the levels in between. One can move down in the hierarchy, and skip a level, but one cannot move up and skip levels without managerial consequences. It was observed that persons of level 4 and 5 of Maslow's classification would psychologically accept the needs of persons from a group at level 1 – 3 in

the hierarchy, but had difficulty with incorporating those needs in the projects; they rather concentrated on “their”, higher, level of needs, leaving it to others to accommodate satisfaction of the lower levels of need.

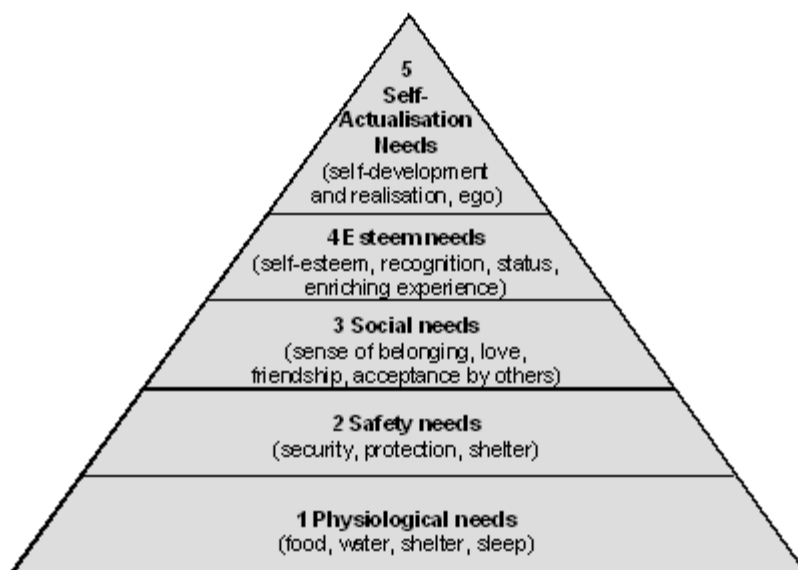


Figure 2 Maslow's Hierarchy of Needs.

Considering Maslow's Hierarchy of Needs in the IS&OD fields of interest it can be observed that typical project objectives address the needs of levels 3 to 5, while the target groups are somewhere between levels 2 and 4. In case of the DRP projects one of the objectives was client-oriented research (level 5) but, comfortable and clean office space, with appropriate basic tools to get the job done, were a constant concern for both the local and expatriate consultants. Local staff was concerned about adequate salaries. Whereas the Projects seemed to jump into level 4 of the Hierarchy of Needs, and talked a lot about reaching level 5, they were brought down constantly by the lack of adequate fulfilment of other pressing needs lower on the hierarchy. When some of the basic needs seem to have been fulfilled as noted previously, it resulted in a marked difference in attitude of the staff at DRI.

These observations are valid for essentially all projects in Egypt, as well as applicable for similar situations elsewhere in the world. Hence aid that is targeted to the upper levels of satisfaction in the Hierarchy of Needs is inadequately considering the actual needs of the target group. Often these concerns are largely ignored. Typical aid does not want to concern itself with improving the office facilities and certainly not with increasing salaries, but does expect outputs as if those particular needs are fully satisfied. These concerns are waved-off as concerns of the people (country) themselves and not of those who wish to improve. Yet there is ample evidence of projects that when these lower needs are addressed appropriately the final result is more satisfactory. Case in point is also the earlier mentioned change in attitude at DRI when pressing needs such as appropriate and safe shelter, i.e. good office accommodation and equipment, were satisfied the attitude of staff changed for the better. It is expected that this will ultimately result in sustainable achievement of the objectives that were formulated in during the DRP projects, provide that some of the work done during these projects are revisited.

5 ANALYSIS

Assessment of Technical Assistance projects with institutional strengthening and organisational development components were reviewed with application of theories of culture and need from the social sciences. The environment of a typical setting in Egypt was described but it may be noted that many of the observations are relevant elsewhere. The links between these theories and Development Aid practices were made where apparent. Some additional relevant observations are described in this section with the main purpose to contribute to trans disciplinary awareness between engineering, managerial and social sciences. The objective of the sections below is also to show that although some of the theories presented are from the early 50's and 70's they are still hot topics of dispute and research.

Recent reviews of Hofstede's original work show hardly any shift in the cultural dimensions, even though the wealth of nations has changed dramatically since the original work. His work is not without criticism (McSweeney 2002, Baskerville 2003), nor is Trompenaar's (Hofstede 1996), but as Sondergaard (2002) observes the core of the debate is a methodological one with (little) practical implications for executives when considering what to do with the issue of cultural differences with, for instance, cross-border mergers. In Development Aid cultural differences have equal relevance for implementation of institutional changes. Both Hofstede's and Trompenaar's modelling of cultural aspects have their pros and cons, but they do provide valuable insights to the typical project manager and other executives. Moreover, they are very similar. Smotherman and Kooros (2001) investigated the

databases that underlie Hofstede's and Trompenaar's studies and found that the country indices for most cultural dimensions strongly correlate (Table 3). The lack of correlation between masculinity dimension and the neutrality dimension is due to lack of sufficient data; in qualitative terms masculinity and neutrality have similar traits. They observed that Trompenaar's work has yet to acquire the depth and breadth of social science research usage currently enjoyed by Hofstede's work.

Table 4 Pearson Correlation of Hofstede and Trompenaars (Smotherman and Kooros 2001).

	Power Distance	Uncertainty Avoidance	Individualism / Collectivist	Masculinity / Femininity	Long/Short term orientation or Confucian Dynamism
Universalistic / particularistic	-0.636		0.721		-0.528
Individualistic / collectivistic	-0.574		0.569		
Neutrality					
Specific / diffuse	-0.493		0.655		-0.619
Achievement / ascription	-0.367	-0.468	0.590		-0.566
Internalist / externalist					-0.628

From our review it would seem that Hofstede's work is more appealing to non-social scientists; Trompenaar's definitions of the dimensions are more esoteric rather than practical. The descriptions are perhaps more subtle and less distinct. Both require substantial data collection, however, for practical usage by Development Aid projects Hofstede's characterisation of more than 90 countries and 5 regions is quite adequate (see for example the selection of countries in Table 3).

The description of the public sector is not unique to Egypt. In many other developing countries, the average public servant can be characterised as being poorly trained, paid, and managed (Schacter, 2000). The performance of the public sector can be improved by giving higher salaries, provide more training, and improve management. However, it is not that simple. Due to the strong centralisation, there is not much room for delegation. In the Ministry of Water Resources and Irrigation, decisions are routinely sent to higher levels of the system, and many seemingly small decisions go to the head of a Department or Authority or even higher (Merrey, 1995). One reason is that the law on delegation of procurement and financial authority is very restrictive. Another is that in the job descriptions, although tasks are well defined, the authority to make decisions is not clearly specified. But even when it is, officials are reluctant to make decisions, preferring to let their superiors decide. According to top government officials, they cannot delegate power because the middle level is not trusted and not seen as competent enough. Hence, the middle management has little responsibility, initiative or authority (Mayfield, 1996). As a result, an employee is dependent on the decision of his superior. This attitude was also prevalent at DRI where for procurement of even the smallest stationary items permission had to be asked of the Secretary General or the Deputy Director.

At a workshop organised by the Royal Netherlands Embassy in May 1996, it became clear that similar projects, of Dutch Aid and other donors, also experienced difficulties with the government system. According to the participants of the workshop, a main constraint was the low salaries, which had a negative impact on performance. Another constraint was the recruitment and personnel policies in use. Promotion was (and is) based on seniority. Staff evaluation is done internally and confidentially, and hence not transparent and clear for the subordinates. This also hampers performance, as performance is not a basis for promotion or for staff evaluation.

Concerning the core issues of salaries, training and improved management it becomes apparent that salaries, being part of the employment contract, are not the most important motivational factor. For instance, at Alterra, a privatised research institute in the Netherlands, salaries are 30% lower than in the private sector, but Alterra does not have any problems attracting personnel, mainly due to the idea of working for a 'good cause' (van der Zande, 2001). Clearly the lower pressing needs of Maslow's Hierarchy of Needs are satisfied even at 30% lower salary such that it is attractive to work for an organisation that focuses on catering to questions that address self-actualisation and esteem needs of the Dutch community and government.

In Egypt, research has proven that prestige is by far the most important motivational factor (Level 4 in Maslow's Hierarchy of Needs, Figure 2). Salaries came second, but only marginally higher than location and security (Palmer, 1988). This shows that within a country or group people can be at different levels of the Hierarchy of Needs. The question is whether Egypt in 2003 is still where it was in Palmers 1988 study. The answer is yes and no; living conditions seemed to have improved in different manners since the Open Door Policy of the 1970's, but population increase abated many of the advances.

Training was used as a motivational instrument in Development Aid projects. This applied especially to the training abroad because of the relatively generous living allowances (per diems) that were provided, and the general status/value attached to travelling abroad. However, the effectiveness of training was diminished when participants were not motivated in their job upon return, partially because of their low salaries. Trained people left the organisation when better opportunities became available elsewhere.

Training appears not to have much effect on better public sector performance. This can be illustrated by an example from another country as well (Schacter 2000):

“A study of Gambians who returned to their home institution after earning degrees from abroad showed that almost none were placed in positions where they could apply their new skills. Despite their new credentials, they were assigned similar duties to those they had before going on training.... Similarly, in virtually all African countries, after series of management-related training courses have been provided to countless public servants at all levels, yet little evidence of tangible change has resulted. What is missing is conscious attention to integrating newly gained knowledge, practices and skills into everyday use in the trainees' organisations.”

Grindle and Hildebrand (1995) state that for an effective public sector, a strong organisational culture, good management practices and effective communication are of major importance. To be able to reform the organisational culture, however, the receiving organisations should meet some prerequisites. In an evaluation of Dutch assistance on institutional strengthening, it appeared that success was more noticeable where organisations had a higher level of autonomy. When organisations, like most of the core government agencies, were hierarchical in character and operated through strict standards and procedures, actions to enhance one aspect of their capabilities (whether human resources development, marketing, or organisational improvements such as new monitoring systems or more policy oriented approaches such as encouraging participatory approaches) had an extremely limited impact on their overall character and capacities. This was particularly true where the drive for change was external and met internal resistance and, where key aspects of change (such as budgetary procedures or staffing policies) were beyond control of the particular organisation (NEDA, 2000).

According to a study of high-ranking bureaucrats in economic government agencies, many agree with this conclusion (Shnief and Handoussa, 2002). There was a firm belief that a greater degree of autonomy would improve performance of the agencies and that a more decentralised structure would be more appropriate. With respect to manpower, the sample concluded that the low productivity of workers was widely attributed to a lack of a merit-based system of promotion, to low wages and salaries, inadequate performance evaluation, inefficient recruitment process, and the inadequate system of incentives. It would appear that both NEDA (2000) and Shnief and Handoussa (2002) observations focus on the symptoms and suggest tools to remedy the shortfalls, but do not go deeply enough into the causes. Cause analysis requires an approach that is more sensitised to Maslow's and Hofstede's theories if nothing but to properly assess the proposed measures on their cultural 'inheritance'.

However, the question is whether this really fits in the Egyptian culture. We think that consideration of the organisational and national cultures that affect management as well as that of the recipients of the project aid should dictate the type of management processes that are proposed for implementation. Also the speed of implementation requires more attention, as the willingness to take risks is low in Egyptian culture. The complexity of change management should be introduced gradually rather than the big bang approach as is sometimes advocated in business circles. Government cultures are only suited for the gradual approach, certainly when these proposed changes are at local levels rather than across the board.

The position on Maslow's Hierarchy of Needs at which donors and recipients of aid were is different and so priorities of certain pressing needs were different. Whereas, all measures for change management, including financial aspects, should be controlled through one organisation, typical Development Aid projects do not allow this. Funding has local and foreign components that are controlled by the respective financing organisations. This leads to unintentional separation of addressing the lower pressing needs, such as better salaries and office accommodation, from the higher level needs. The latter concern reaching the intended higher level needs such as transparency and good governance, which are the objective of the aid and/or projects. These higher-level needs tend to be dealt with before the lower-level needs are met. The result is lower achievement of capacity building compared to objectives at the beginning of Development Aid projects.

6 CONCLUSIONS

The intent of capacity building in its broadest sense was reflected upon using typical technical assistance projects that were enhanced with processes improving aspects. The change in emphasis towards Institutional Strengthening and Organisational Development (IS&OD) has been incorporated to typical Development Aid projects over the last decade. Its success is mixed and the reasons reviewed herein.

The main focus of IS&OD was on improving salaries (by giving incentives), offering and executing training and creation of enabling environment and tools. From the analysis it can be concluded that the main factor for change in management is the improvement of the organisational culture. Though a start was made with reforming the organisational culture, it should be realised that this is a long-term process and that change has to come and be supported from within. Moreover, adequate funds for all components of the change process need to be committed. The Netherlands Ministry of Foreign Affairs recognises these problems. They state that the lack of sustainability in development projects is often due to the over-estimation of the capacity of the receiving organisation and the under-estimation of the complexity of the institutional environment (NEDA, 1999). It should be remarked upon that by not willing to give support to overcome the most pressing and basic needs of people and organisations (the first two levels in Maslow's

Hierarchy of Needs), which were identified formally and informally by the consultants of the various projects, and are highlighted in this paper, means that IS&OD efforts are setup for failure. It would appear that more emphasis should be given to not only organisational culture, but also more so to the cross-national culture difference of staff working on the projects. HRM is much more than training, career planning, strategy formulation and structure setting. The processes for institutional change should be enhanced with contemporary Human Resources Management principles (Boxall and Purcell 2003).

During the execution of the DRP projects a number of the issues raised herein were recognised. At that time these were not articulated, nor were they backed up by findings of the literature. This paper has corrected that. The sense by all project staff of limited achievements at the conclusion of the project was correct. Yet it is clear that all parties involved (donors, recipients and external consultants) together still could not overcome the constraints imposed by the government, national and cultural settings even though top level administrators and consultants expressed concepts reflecting contemporary business style management (Abu Zeid 1998, El Azzazi 2001).

7 RECOMMENDATIONS

Before proposing an IS&OD project it is very important to analyse the internal and external environment. In a workshop organised by the Royal Netherlands Embassy in 1996, the institutional environment of Egypt was analysed (albeit not using Hofstede's and Maslow's theories), but unfortunately no follow-up took place. In our view, this analysis of the institutional environment is but one of the important aspects of successful IS&OD projects. There is an increasing important task for Embassies to stimulate the application of contemporary business management principles with the execution of projects. After all, these projects are major investments and some down to earth, transparent and innovative application of existing investment and appraisal tools can go a long way to achieve good governance.

Identification of managers who are willing, and dare, to change the organisational culture should be stimulated. Through technical assistance, the champions (the people who have the power) and the so-called change agents, who are willing to start the transformation process should be identified and supported (NEDA, 1999, Abu Zeid 1998). In such a situation, the process of change might be accelerated, provided proposals are also considered in light of cultural typologies, Hierarchy of Needs and the constraints of the internal and external environment as described in this paper.

8 REFERENCES

- Abdel Gawad, S., Omara, A., Abdel Ghany, M.B., and Walbeek, M.M. (Eds.). 2001. Workshop Proceedings on Institutional Strengthening and Organisational Development of Government Research Organisations. Cairo, Feb. 19, 2001. DRP2 Report. Drainage Research Institute, El Kanater, Egypt, Mar. 2001. 134 pp.
- Abrahart, A., Kaur, I and Tzannatos, Z. 2002. Government Employment and Active Labor Market Policies in MENA. In; Heba Handoussa and Zafirijs Tzannatos (eds). Employment Creation and Social Protection in the Middle East and North Africa, The Economic Research Forum Edition, The American University in Cairo Press, Cairo, Egypt.
- Abu-Zeid, M.A.H., 1998, Skills Required by Public Works Departments in the 21st Century. In *Sustainable Development of Deltas*, Proceedings of the International Conference at the Occasion of 200 Year Directorate-General for Public Works and Water Management, 23-27 November 1998, Amsterdam, the Netherlands. Oudshoorn, H., Schultz, B., Urk, A. van, Zijderveld, P. (Eds.), Delft University Press, the Netherlands.
- Amin, G., 1997. Economic Change, Social Structure and Religious Fanaticism. In: Hopkins N.S. and Ibrahim, S.E. (eds). Arab Society - Class, Gender, Power & Development. American University Press, Cairo, Egypt; 575-583.
- Baskerville, R. F. 2003. Hofstede Never Studied Culture. Accounting, Organizations and Society, Pergamon/Elsevier Science Ltd, UK 28: 1-14.
- Boxall, P. and J. Purcell 2003. Strategy and Human Resource Management. Basingstroke, Hampshire, UK, Palgrave MacMillan. 287 pp.
- EIU. 1999. Country Profile Egypt - 1998-99, The Economist Intelligence Unit (EIU), London, UK.
- El-Sayyid, M.K., 1996. Bureaucracy and Political Change in Egypt. In Development in the Age of Libaralization - Egypt and Mexico, Tschirgi D. (ed.), American University in Cairo Press, Cairo, Egypt;109-117.
- El Azzazi, M. 2001. IS and OD in Egypt, Experiences and Opportunities. In: Abdel Gawad et al. (Eds). Workshop Proceedings on Institutional Strengthening and Organisational Development of Government Research Organisations. Cairo, Feb. 19, 2001. DRP2 Report. Drainage Research Institute, El Kanater, Egypt, Mar. 2001. 11- 28.
- Gamal El Din, G. 2001. The Information Technology. In: Abdel Gawad et al. (Eds). Workshop Proceedings on Institutional Strengthening and Organisational Development of Government Research Organisations. Cairo, Feb. 19, 2001. DRP2 Report. Drainage Research Institute, El Kanater, Egypt, Mar. 2001. 29 – 38.
- Grindle, M.S. and Hildebrand, M.E. 1995. Building Sustainable Capacity in the Public Sector: What Can be Done? Public Administration and Development, 15, pp 441-463.
- Hofstede, G. 1996. Riding the Waves of Commerce: a Test of Trompenaars' Model of National Culture Differences. International Journal of Intercultural Relations, 20(2): 189-198.
- Hofstede, G. 1991. Cultures and Organizations; Software of the Mind. New York, McGraw-Hill. 279 pp.
- Hofstede, G. and Bond, M. H. 1988. Confucius and Economic Growth: New Trends in Culture's Consequences. Organisational Dynamics, 16 (4), 4-21.

- Hoodfar, H. 1999. *Between Marriage and the Market – Intimate Policies and Survival in Cairo*. The American University in Cairo Press, Cairo, Egypt.
- Ibrahim, E.H. and El Ganzouri, A. 2001. Introduction to Quality Standards and ISO 9000. In: Abdel Gawad et al. (Eds). *Workshop Proceedings on Institutional Strengthening and Organisational Development of Government Research Organisations*. Cairo, Feb. 19, 2001. DRP2 Report. Drainage Research Institute, El Kanater, Egypt, Mar. 2001. 99 – 114.
- ITIM. 1993. *Institute for Training in Intercultural Management*.
- Khater, A.R. and Fikry, A. 2000. An Overview of RIGW's Organisational Strengthening Program (1994 – 1998). In: Abdel Gawad et al. (Eds). *Workshop Proceedings on Institutional Strengthening and Organisational Development of Government Research Organisations*. Cairo, Feb. 19, 2001. DRP2 Report. Drainage Research Institute, El Kanater, Egypt, Mar. 2001, 87- 98.
- Maslow, A. 1954. *Motivation and Personality*. Harper and Row, New York. pp 80 – 106. In: Kotler, P. 2003. *Marketing Management*. Upper Saddle River, NJ, USA, Prentice Hall.
- Mayfield, J.B. 1996. *Local Government in Egypt. Structure, Process, and the Challenges of Reform*. The American University in Cairo Press, Cairo, Egypt.
- McSweeney, B. 2002. Fundamental Flaws in Hofstede's research. *European Business Forum*, EBF(9): 39 - 43.
- Merrey, D.J. 1995. *Governance and Institutional Arrangements for Managing Water Resources in Egypt*, International Irrigation Management Institute, Colombo, Sri Lanka; Paper Prepared for a Lecture on 2 November 1995, Wageningen, the Netherlands.
- Merrey, D.J. 1998. *Governance and Institutional Arrangements for Managing Water Resources in Egypt*. In *Water control in Egypt's Canal Irrigation, a Discussion of Institutional Issues at Different Levels*, Mollinga, P.P. (ed)., ILRI, Liquid Gold Paper 3, Wageningen, the Netherlands.
- NEDA. 1998. *Egypt - Evaluation of the Netherlands Programme with Egypt, 1975-1996, Main Report 1998*, Netherlands Development Assistance (NEDA), Policy and Operations Evaluation Department, Ministry of Foreign Affairs, the Hague, the Netherlands.
- NEDA. 1999. *Concept Beleidsnotitie Institutionele Ontwikkeling*, Netherlands Development Assistance (NEDA), Ministry of Foreign Affairs, the Hague, The Netherlands (In Dutch).
- NEDA. 2000. *Institutional Development, Netherlands Support to the Water Sector 1988-1998, IOB Evaluations no. 284*, Netherlands Development Assistance (NEDA), Ministry of Foreign Affairs, The Hague, the Netherlands.
- Palmer, Monte, Ali Leila and El Sayed Yassin, 1988, *The Egyptian Bureaucracy*, Cairo, the American University in Cairo Press, Cairo, Egypt.
- RNE. 1996. *Institutional Development in Netherlands Assisted Projects in the Water Sector of Egypt, Experiences and Perspectives*, Report of Workshop. Royal Netherlands Embassy (RNE), Cairo, Egypt.
- Schacter, M. 2000. *Evaluation Capacity Development, Sub-Saharan Africa: Lessons from Experience in Supporting Sound Governance*, ECD Working Paper Series Number 7, February 2000, World Bank Operations Evaluation Department, World Bank, Washington.
- Shaan, T. 2001. *Introduction to Marketing as a Tool for Developing a Customer-Driven Organization: Implementation at the Drainage Research Institute*. In: Abdel Gawad et al. (Eds). *Workshop Proceedings on Institutional Strengthening and Organisational Development of Government Research Organisations*. Cairo, Feb. 19, 2001. DRP2 Report. Drainage Research Institute, El Kanater, Egypt, Mar. 2001, 59- 76.
- Shiavo-Campo, S. 1997. *Government employment and pay in global perspective: a selective synthesis of international facts, policies and experience*, Public Sector Management Information Technology Team, Technical Department for Europe, Central Asia, Middle East and North Africa, World Bank.
- Shiavo-Campo, S. 1998. *Government employment and pay: the global and regional evidence*, *Public Administration and Development* 18: pp. 457-478.
- Shnief, H.A. and H. Handoussa. 2002. *Institutional Reform to Encourage Investment*. In: Noha el-Mikawy and Heba Handoussa (eds). *Institutional Reform and Economic Development in Egypt*. An Economic Research Forum Edition. The American University in Cairo Press. Cairo, 2002
- Smotherman, R., and Kooros, S. 2001. *Assessing Cultural Differences: Comparing Hofstede's and Trompenaars' Dimensions*. *Journal of Business Disciplines, Proc. Annual Meeting Academy of Business Disciplines*: 20 pp. (www.abwebsite.com).
- Sondergaard, M. 2002. In my opinion: a reply on McSweeney's Fundamental flaws in Hofstede's research. *European Business Forum* , EBF(9): 40 - 41.
- Soussan, J. (University of Leeds), 2000. *Institutional Development - Netherlands support to the water sector 1988-1998 - case studies*, Working Document, Policy and Operations Evaluation Department, Ministry of Foreign Affairs, the Hague, the Netherlands.
- Trompenaars, F and Hampden-Turner, C. 2003. *Trompenaars Hampden-Turner International Management Consulting*. www.7Dculture.nl or www.thtconsulting.com .
- Trompenaars, F. 1993. *Riding the waves of culture*, The Economist Books, p. 138-163.
- Tzannatos, Z. 2002. *Social Protection in the Middle East and North Africa: a review*. In; Heba Handoussa and Zafiries Tzannatos (eds). *Employment Creation and Social Protection in the Middle East and North Africa*, The Economic Research Forum Edition, The American University in Cairo Press, Cairo, Egypt.
- Van der Zande, A. 2001. *Alterra: a Dynamic Water Research Institute in a Changing NW Europe*. In: Abdel Gawad et al. (Eds). *Workshop Proceedings on Institutional Strengthening and Organisational Development of Government Research Organisations*. Cairo, Feb. 19, 2001. DRP2 Report. Drainage Research Institute, El Kanater, Egypt, Mar. 2001, 39-42.
- Walbeek, M. M., Vlotman, W.F. and Abdel Gawad, S. 2001. *Institutional Strengthening in DRI*. In: Abdel Gawad et al. (Eds). *Workshop Proceedings on Institutional Strengthening and Organisational Development of Government Research Organisations*. Cairo, Feb. 19, 2001. DRP2 Report. Drainage Research Institute, El Kanater, Egypt, Mar. 2001. 11- 28.

- [1] Paper No 125. Presented at the 9th International Drainage Workshop, September 10 – 13, 2003, Utrecht, The Netherlands.
- [2] Environmental consultant, Royal Haskoning, the Netherlands (Associate expert in Egypt 1999 – 2002 with DRP2 project and Groundwater Sector Project).
- [3] Drainage and Irrigation Engineer/Researcher, Alterra-ILRI, Wageningen, The Netherlands (Team leader DRP1 and DRP2 projects 1994 – 2001 and MBA student WSM School of Business, Wageningen, The Netherlands, 2002 - 2003). Email: willem.vlotman@wur.nl.