

SUB-THEME: SOCIO-ECONOMIC ASPECTS

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1 INTRODUCTION

For the discussion in the workshop socio-economic aspects of polder development, 14 papers were made available to the reporters. Ten of the papers focus on the IJsselmeerpolders or at least on The Netherlands and four are dealing with settlement activities in other countries, be it not only polders. It is clear that through this set of papers not a balanced picture is presented on the socio-economic problems with regard to polders in the world.

The papers have been divided into two main categories.

1 papers dealing with polders and settlements outside The Netherlands (Awan and Latif; Oyedipe; Smit; Steenwinkel).

2 The IJsselmeerpolders (Netherlands)

Papers in this category are rather arbitrarily organised in four groups.:

a sociological and historical aspects (Constandse; Hoeve; Schenk)

b management and administration (Den Hertog; van der Spek)

c role of new centres and employment (Fels; Scherjon and Verhoef)

d landuse and recreation (Ter Haar; Hengeveld; Hoeve)

A short abstract of the fourteen papers is is given hereafter.

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SHORT ABSTRACT OF THE PAPERS

2.1 Papers on polders and settlements outside The Netherlands

- The paper of Awan and Latif deals with '*Socio-economic aspects of water management of salinity control and reclamation project no. 1 in Pakistan: a case study*'. The results of the pre- and post-project evaluation and the socio-economic impact of the project are discussed. In this pilot project of 0.5 million hectares in the Indus-plain tubewells are installed who should lower the very high groundwaternable, decrease water logging, help to reclaim salt-affected soils and provide more irrigation water. Although the high investment in the tubewells was justified in terms of higher cropping intensity and expected higher yields, the results show quite a different picture. Due to the high capacity of the tubewells installed and their positioning, combined with inadequate and irregular organization of water allocation, operation and maintenance, irrigation water supply to the farmers is not reliable and insufficient. An increase in cropping intensity is only due to the additional installation of private tubewells. In 1981 the yields are only 50-60% of the expect ones. A result, the benefit cost ratio is less than one and the internal rate of return is only 5.7%.

The farmers who often have salt-affected lands, are hardly able to pay their waterfees: loans and the selling of animals must fill in the gaps.

- Oyedipe describes in his paper "*Innovative potentials of Kainji Lake Basin for Fadama farming: a study of three settlements*" the situation in three settlement villages. He explains the role and functions of the 'chief farmers' in relation to the World Bank promoted training and visit system for extension service. He concludes 'that meaningful change for development has to come from outside the rural areas', and that innovations have to be administered carefully.
- In the paper "*The origin and early stages of the Herman Göring polder (Tümlauer Koog) in Schleswig-Holstein, Germany*", Smit stresses the influence politics and ideology can have on polder development. In the case discussed the need for a quick political success led to a hasty implementation of the empolderment and the construction of (farm) houses which resulted in many technical problems. Conflicting political views and institutional interests can be perceived in the layout of the new land, the architectural design and the selection of settlers. Due to the fact that the settlers had to start under poor natural and social conditions and had to depend heavily on each other in the early stages, a considerable amount of solidarity and community-spirit was developed. Even after handing over their farms to the second generation of farmers and often living outside the polder, they stick together. Under the second generation the ideological character of the polder, both social and economic, has disappeared.
- Steenwinkel's paper "*Policy and settlement aspects of tidal swamp land development in Indonesia*", discusses some of the problems concerned with the reclamation of the last remaining land resources of this nation.

Indicated are the consequences of high and low costs development and the possibilities to combine four main policy options: 1) A fast and certain increase of rice production; 2) a maximum income for farmer from 2 ha; 3) maximizing the transmigration from Java and Bali to the Outer Islands; 4) keeping development cost per ha at minimum level. Furtheron, criteria are indicated for settlement planning, such as the location of houses, the services to be provided on basic, primary and secondary level, and its location.

2.2 Papers on the IJsselmeerpolders (Netherlands)

a. Sociological and historical aspects

- Constandse in his paper *'From spontaneous settlements to integrated planning and development'* indicates the changes in character of land reclamation and its settlement in The Netherlands. Initially the aim of polders was to protect the land against flooding and occupy it permanently and safely. During the next phase investment considerations of rich urban merchants were the reasons for polder construction. From the 19th century on the state intervened in polder construction. This state intervention was at the beginning a very minimal and purely technical assistance: settlers were really pioneers. Gradually the state-intervention became more and more comprehensive until it reached its present-day all-comprehensive character.

The character of the various IJsselmeer-polders that were constructed during several decades, reflect the changes in Dutch society, through differences in landuse, agricultural layout, settlement pattern, service centres and recreational facilities: each polder is an expression of the time just before its construction.

- The paper of Hoeve *'Allocation of land to agricultural uses in the Dutch IJsselmeerpolders'* indicates that since 1910 there is a trend to allocate more of the land that through reclamation becomes available, to urban use, recreation and natural reserve. Furtheron the paper indicates the trend of further specialization in agriculture, the great increase in farmsize and plotsize, the criteria for settler selection and the two legal forms of land lease to settlers and special agriculture-related enterprises.

- In his paper *'New structures in newly reclaimed land? The development of social structures in Flevoland, (IJsselmeerpolder) The Netherlands,'* Schonk pays attention to the three main tasks sociologists can have in helping to build a new community, 1) make a thorough study of the intention and aims of the polder in connection with the social structure of the future population; 2) advising in land use and service building in order to improve the quality of life; 3) evaluation of the quality of life and following and explaining, the social changes that occur.

He focusses his attention on the two main cities in the polder: Lelystad and Almere. Lelystad was started by a small group of 'colonists' who in both working and leisure time were strongly involved in building the town and the community.

The atmosphere of 'participation' changes, when the commuters of Amsterdam settled, whose main reasons to move were to find better houses in a safer surrounding and with more outdoor recreation facilities. In Almere Haven the same process took place but in Almere stad no 'colonists' mentality was developed. This made the start of community life much more difficult. Without special and guided efforts the immaterial aspects of the quality of life of the new settlers will not be any better than the situation where they are coming from: new and more integrative social structures do not come automatically into existence to replace the social luggage settlers took with them to their new environment.

b. Management and administration

- Den Hertog in his paper '*The Zuiderzee project in The Netherlands*' describes some of the administrative changes that took place with regard to several polders. Once the decision was taken that it should be the central government to finance and carry out the Zuiderzee polders, specialised authorities were created by law to carry out the work and for the further development of the polders (IJsselmeer Polders Development Authority), both under the Ministry of Transport and Public Works. After completion of the polders and before the start of settlement, different organizational arrangements with different degrees of autonomy were founded for the various polders to incorporate them (provisionally) into the normal administrative structure. However, it is only in the case of the Wieringermeerpolder authority that it governs settlement plus management and water control. In the North East polder, initially a commissioner was appointed as sole manager with the power of a municipal council and its executives. With the increase of the number of inhabitants, four municipalities were formed up till now. Conclusive arrangements for watercontrol (volume), waterdefences and the provincial structure for the polders are still pending.

- The paper of van der Spek '*Management as a task, polder administration as a means for an integral management of rural areas*' makes the suggestion to extend the responsibility of the present polder-administration unit. Quality and quantity of water and its level influence strongly certain valuable ecosystems. Canals and embankments are or can become important recreation areas with only minor adaptations to be made (slightly higher bridges for the passing of canoes, etc.; simple pavement of inspection roads to make them attractive for fisherman, walkers and cyclers etc.) Due to the close interrelationship between control of water for agricultural purposes, nature management, landscape management and recreation in rural areas, an integrated management via the polder administration units is advocated.

c. Role of new centres and employment

- Fels in his paper '*Employment planning in new towns in the IJsselmeerpolders*' describes the influence changes in the economy and new insights with regard to the role of new towns can have an employment forecasts Emmeloord and Dronten, planned as agricultural centres show now an employment structure where the service sector and manufacturing industry dominates.

Lelystad changed its position of new town, from regional economic centre to overflow town with employment growth lagging behind demand. Almere has reasonably fulfilled its employment targets in 1981 but the composition of the labour force is different from what was planned. Instead of the manufacturing sector it is especially the wholesale sector which shows particular interest in moving from the Amsterdam-region to Almere. Employment planning is supported by attractive services, low-costs facilities and tax-stimulants to encourage enterprises to start their business there.

- Scherjon and Verhoef in their paper '*The regional economic policy in the new towns Almere and Lelystad*' discuss the functions those two towns have to fulfill in the national framework of The Netherlands. The main function was to relieve the overcrowded conditions of the Randstad by offering housing facilities and to create at the same time a living environment that could meet both housing and jobneeds.

Due to two developments this policy had to be reconsidered 1) There was a failure in matching jobs and skills. This forces polders resistant to commute to the Randstad for jobs 2) The present recession in the economy, makes firms hesitant to move from one place to another.

But the authors claim that these towns have comparative advantages for small and medium sized enterprises.

d. Land use and recreation

- Ter Haar's paper '*Recreation in new areas. The IJsselmeerpolders as a case-study*', shows a considerable change in the attention given to open-air recreation since the first polders were started. In the planning of the first polders attention was only given to open-air recreation of the 'following type': small forests and parks, central open spaces in villages, swimming pools etc. were clearly meant for the recreation of the local residents. With the construction of the subsequent polders, the responsible authorities were surprised by the enormous interest of one-day tourists for the new borderlakes with their freshwater beaches and watersport facilities. The polder area itself turned out to be a tourist goal as well.

In response to this interest it was decided upon in the early sixties to consider open-air recreation as a stimulating factor for regional development: both 'following' and 'stimulating' type of open-air recreation facilities were included in the regional physical planning. Areas around and close to borderlakes have been arranged in such a way that they now attract and can absorb many tourists from all over the country and even from outside the national boundaries.

- Hengeveld's paper on '*land evaluation for urban development in the Netherlands*' indicates that applications of land evaluation procedures for urban development can provide important information for planning and design of urban area development.

Since soil- and hydrological surveys are necessary for local urban development anyway, such a land evaluation should be done at the beginning of the planning process, when it can be done without extra costs.

- In his paper '*Cost benefit analysis for a planned part of the IJsselmeerpolders project*' Hoeve shows first of all that there are many practical and theoretical problems related to cost-benefit analysis, because one has to do with direct and indirect - material and immaterial effects. Furtheron the paper makes clear that cost-benefit analysis is wide open to political and other types of manipulation.

It was laudable that the organisers of the international symposium on *'Polders in the World'* have made room for the human being in these polders. After all, polders are made by people for people (Schonk). However we are faced now with the question what it is in polders that influences human behaviour in such a way that it is different from other areas.

One element that clearly makes a difference is the influence of the eternal fight against the water on human character and society. Without following all the way long Huntington's opinion in his book *'The climatic factor'* (1914) it cannot be denied that the habitant has a profound influence on society (Forde; Habitat, Economy and Society, 1934).

In a polder ~ environment a community must necessarily find an internal organization form in such a way that it effectively can protect itself from the potential calamity that in one night could destroy the community (like what happended in The Netherlands in 1953). A fairly high degree of internal organization of the polder population and polder management is necessary not only with a view to eventual calamities but also to cope with the daily operation and maintenance of the rather complex watersystem and waterdefences. As compared to large irrigation projects there is a vital need for adequate maintenance and operation.

Another possible difference in polders compared to other areas is that once man has driven out the water, he has land that is tabula rasa, both physically and socially. This gives the opportunity to create a physical environment that is completely man-made at a specific point in time and requires hardly any adaptation (Constandse; Steenwinkel).

Polders therefore reflect very clearly the social and even the political situation at the time they were created (Smit and other authors). However, the latter point is not specific for polders. One has only to think about the Geziria-scheme in Sudan. Which means that in fact the social problems encountered in polders during their initial stages of settling the 'colonists' and later on during the growth of a new society are basically the same as those met in (large) settlement schemes in empty areas all over the world.

Our conclusion is that polders represent a special form of settlement-scheme in empty land with high requirements for drainage facilities (and irrigation eventually) and for internal organization and management.

Of the papers presented, several of them are dealing with subjects that are not specific at all for polders or even for settlements in general. Most of the contributions to this section of the symposium are of a descriptive nature; they supply us with interesting information but do not compare their information with experiences from elsewhere. Neither are we supplied with efforts towards a more general or systematic approach based on information the authors might have, as was for instance done by R. Chambers his book *'Settlement schemes in tropical Africa'* (Routledge and Kegan Paul 1969), by G.B. Palmer in his article *'The agricultural settlement scheme: a review of cases and theories'* (in *Anthropology and Social Change in Rural Areas*, B. Berdichewsky ed, Mouton 1979) or by C. Takes in *'Land settlement and resettlement projects'*, ILRI 1975.

Nevertheless, in many papers directly or indirectly themes are indicated that are encountered all over the world where large scale polders or settlement schemes are planned and implemented. Some of these themes will be mentioned here.

- The influence of politics, ideology and the national image on the start, the layout and the speed of implementation of polders and irrigation and settlement schemes. It is often related to a catastrophe or the threatening of it that the political will becomes strong enough to devote considerable shares of public funds to realize schemes that have lingered often for a long time on the drawing boards of the civil engineers. The Netherlands is a case in point.

For political purposes polders and schemes must be inaugurated at a

specific time. Since this time in many cases is earlier than desirable, the speeding up often has a detrimental effect on the quality of the technical works and affects the level of living and its quality for the new inhabitants for many years in an adverse way. Smit's paper presents a clear example on this item. The same phenomena is happening on a much larger scale in the Mahaweli Ganga Scheme in Sri Lanka. An example of political motives to revise the civil engineering design is presented by the Syrian Government who required a cheaper and higher design of the Euphrates dam because it wanted to have the highest dam in the region (higher than Egypt's high dam). Consequently, settlement was delayed.

It is interesting to find out how instrumental or how dysfunctional political forces have been in the start, design and speed of development of polders and other settlement schemes.

- Large polders and settlement schemes require a specific type of organisation that is powerful and can coordinate the many different types of activities that are involved in such works. The 'authority' is a well known and preferred type of institution for these activities. They have considerable advantages but also disadvantages. To create an organization is easy but once its task is over or declining in size and importance, it is so far more difficult to diminish it in size or to liquidate it.

Could it be that the slow integration of the new areas in the political system of the Netherlands (municipal, provincial system). (Den Hertog) was also partly due to some hesitance of the IJsselmeer Development Authority to lose some of its influence?

- One of the most interesting sociological aspects of polders and large settlement schemes in empty areas is the creation of new communities. Several important issues can be distinguished.
 - First there is the selection of settlers with such problems as the question whether to give preference to highly qualified settlers in order to make the polder/settlement an economic success or to give chance to poorer farmers from the old land (Steenwinkel, Smit). Should selection be done on an individual basis, often resulting in a deformed demographic structure with serious consequences for the school and health systems, or should one take whole communities or parts of them in order to have at least some basis for the develop-

ment of 'new' community. In the latter case it is likely that the 'social luggage' (Schonk) will survive longer and can retard modernisation.

Often, due to the existing social and political structure, selection of settlers is also based on certain quota's with regard to specific groups in the society. A specific distribution over religious groups has strongly influenced the society in the North East Polder. The same kind of distribution took place in Suriname with regard to racial groups and in Africa with regard to tribal groups.

- Another interesting aspect in how far the settlement agency should take care of all aspects: what efforts can be expected from the settlers themselves. Apart from the economic and financial aspects (often of great importance in developing countries) there are also some interesting consequences that have to be taken into account by making this decision. There is for example the community spirit. From several papers (among others Schonk, Smit, Scherjon and Verhoef) one can draw the conclusion that a settlement agency preferably should not take care of everything but instead should leave the settlers with building and organizing a part of their new environment. These common activities, often to be carried out under difficult conditions, enhances a colonisers' spirit that makes the building of a new community and the integration of settlers in it, much easier. When the 'late' settler arrives most things have already been organised and found its place, and communication patterns have been established, which make his integration in the young community much more difficult. People are making polders for people (Schonk) but what is the say of the settlers in the physical and social environment in which they and their children have to live? In other words is there any room for participation (and what kind of participation) of settlers in the design and implementation of polders and settlement schemes?
- It is quite normal that the governments' objectives leading to the construction of a polder, are revised during the construction period which extends over a number of years. Pressing problems and new insights might lead to revised wishes like higher demands for urban development and industrial facilities, or for a modified type of agricultural exploitation and related settlement. The IJsselmeer-polder Authority, under sometimes heavy political pressure, has been

able to adapt its plans for the physical infrastructure to accommodate the new wishes. It is an interesting question how much flexibility can be built into the initial plans for layout and physical infrastructure that might come up during later stages of planning and implementation. How far in the planning procedure could flexibilities be maintained at what extra cost? These questions are not only relevant to polders and settlement-schemes, but do apply to irrigation projects in new areas or in already populated areas as well. Giving room for new insights in regional development, in farm economics and for settler-participation looks worthwhile to be considered.

- From theoretical point of view it is interesting to discuss under which social, economic and ecological conditions polders are/were constructed. Under the social conditions one could imagine a high population pressure, the fear for a calamity, an adequate level of technology, a fairly high degree of internal organization and differentiation plus a sufficiently strong central government to allocate the necessary funds and required manpower for the construction and operation (Wittfogels' hydraulic society?). The economic conditions require a.o. such a high surplus production that the investment capital can be supplied and that future demands for the high cost agricultural and industrial goods or facilities to be produced in the polder, is high enough to justify the investment as compared to investing it in further intensification on the existing land. Ecological conditions could be that the prevailing (agricultural) production system fits into the polder environment, and that the creation of the polder does not interfere too much with the natural conditions necessary for food production and healthy living conditions in other parts of the country.

It is clear that only some of the themes mentioned by the various authors of the papers have been indicated: the selection of the themes indicated above is strongly influenced by the experiences and interests of the reporters.