DOCUMENT RESUME

ED 125 936 SO 009 162

AUTHOR Swatridge, L. W.; Vass, B.
TITLE Netherlands: A Conceptual Unit. Instructional Activities Series IA/S-13.
INSTITUTION National Council for Geographic Education.
PUB DATE 75
NOTE 38p.; For related documents, see ED 096 235 and SO 009 140-167
AVAILABLE FROM NCGE Central Office, 115 North Marion Street, Oak Park, Illinois 60301 ($2.00, secondary set $15.25)

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS *Concept Formation; Concept Teaching; Economics; Environmental Education; European History; Foreign Countries; Generalization; *Geographic Concepts; Geography; *Geography Instruction; Inquiry Training; *Land Use; Learning Activities; Maps; Map Skills; *Natural Resources; Secondary Education; Social Studies Units; Teaching Techniques
IDENTIFIERS Netherlands

ABSTRACT

This activity is one of a series of 17 teacher-developed instructional activities for geography at the secondary-grade level described in SO 009 140. The activity investigates resource management and economics. It employs the student-activity approach to inquiry learning by using group work, simulations, and team research reports. Given data about the cultural and natural resources of the Netherlands, students make observations, generalizations, and intelligent decisions about foreign ownership, pollution, resource management, and land use allocations for the future. The unit is arranged into four activities. Activity one, introducing the unit, offers a "word association" technique to the regional study. Students are given a list of words, such as Europort and Polder, to identify and explain. Then they refer to a map to identify the places and relationships to the Netherlands. In activity two, students view slides and then write a script to explain ideas which illustrate factors of resource management in the Netherlands. Activity three engages students in a research project investigating natural and cultural resources. For example, students might gather data to support a hypothesis that the Netherlands has made a vast contribution to the cultural heritage of Europe. The last activity centers around map analysis. Students identify the conflicts between urbanization and land use and examine resource management techniques as practiced by the Dutch. Maps, statistics, vocabulary, and detailed data sheets are provided. (Author/DB)

National Council for Geographic Education

INSTRUCTIONAL ACTIVITIES SERIES IA/S-13

THE NETHERLANDS: A CONCEPTUAL UNIT

by

L. W. Swatridge
Program Consultant
Ministry of Education
Ontario

B. Vass
Co-ordinator of Geography
Board of Education
Borough of North York

The concept of resource management is designed to provide the student with a learning framework of knowledge, understanding and experience needed to make intelligent decisions regarding such things as foreign ownership, pollution, resource management and land use allocations for the future.

The Netherlands unit provides an excellent means to achieve this conceptual learning objective. The sample activities included illustrate the student activity approach to inquiry learning.

Conceptual Learning

A concept is a major geographic understanding which identifies with significant world phenomena and interprets the geographic viewpoint. Therefore, the conceptual patterns are a useful way for the geography student to view the world and its people. As he begins to understand the concepts in greater depth he begins to think geographically and thus develops a spatial synthesis which enables him to deal with the infinitely complex sum of human knowledge in a specific place. Immanuel Kant, the German Philosopher, has stated that this conceptualization of spatial phenomena is the philosophical justification for teaching geography.

The basic concepts used in this unit are adapted from the curriculum guide "Man and the Earth", published by the Ontario Ministry of Education. The major concept developed is resource management and the minor concept is graphicacy or graphic communication.

The second term 'unit', used in this paper, is an equally difficult term to define since there are many interpretations presently employed. A unit is considered to be a section of work approximately three to five weeks in length, which develops a specific concept in a meaningful, student-oriented, experiential activity. These activities may be centered on a particular region, topic, theme or problem. They are designed to deal realistically with spatial synthesis within the capability and interest levels of the students involved. Specific learning strategies and subject techniques are built into each unit so that the student is doing real geography and not merely describing or memorizing data. Every unit illustrates the trilogy of geography, that is, the interrelationship of man, the physical environment and cultural matrix within a specific area.

In addition to the activities there should be opportunities for local environmental studies which would relate the conceptual objective to the observable environment of the student. The scope of geography is limited only by the selection of places and peoples which can be made relevant and significant to the individual student.

The Netherlands unit develops the following:

(a) the concept of resource management and economics;

(b) a variety of learning strategies such as group work, simulations, etc;

(c) specific learning processes such as observing, generalizing, and decision making;

(d) a planning approach suggested in the curriculum guide, "Man and the Earth," published by the Ministry of Education, Ontario, Canada.

Activity I - From Clues to Concepts

Introduction:

There are a great many ways to introduce a unit involving a regional study. A common and valid approach is to begin with map study and develop ideas and concepts with the map as the starting point. The first map studied need not be of the country itself, but instead one could begin with a map that shows the continent of Europe so as to make clear the spatial relationships between the Netherlands and the surrounding areas. A natural and useful introduction would be to move then to a detailed map on an overhead, or in each student's atlas, to explore concepts at a larger scale.

Another possibility would be to use a film. Discuss the film from the standpoint of the resources mentioned. The resources viewed in the film could be listed by the class as a whole or each student could compile his own as the film was being shown along the lines of instructions given before the film began. Students could be asked, for example, to list resources under two classes -- cultural (man made or "of man") and natural (physical or "of nature").

A different introductory activity is suggested for this unit, however, one that has been successfully used with remedial as well as advanced classes. Of course the method has to be adjusted to suit different levels, but this can be done readily once you come to know your students -- or very readily once you have tried it several times and learned which words work. For lack of a better name, one might call this approach a "word association" technique, or "clue to concept" method.

Part A :

By the time the class enters the room have the following words on the board, covered up; however, with a map or screen until you are ready to start:

Philips
Europort
Hudson
Arnhem
The Northern Venice
Polder
Edam
House of Orange
Holstein-Friesian
Shell Oil Company
Benelux
Queen Juliana
Indonesia

Tell the class you are beginning the study of a new country and rather than telling them which one, they are to tell you by studying the words on the board. Instruct the class to copy each word down in a list, identify as many as they can with brief explanations and determine - if possible - the country which is associated with every one of them in some way.

After 5 - 10 minutes of working on the first 13 terms you might heighten the suspense by adding the following words, one by one, to your list:

Limburg
Zuider Zee
Haarlem
Delft
Rembrandt
Guilder
Gouda
Anne Frank
The Hague

After several minutes of letting pupils struggle to identify the country with these new "clues", take some answers from the class to see how well they are progressing. The countries they have decided upon should be listed on the board also, but virtually without comment. Depending on how well the class is doing -- or on their interest span -- you might add a last 6 "clues" which are intended to enable every student to determine the country involved.

Rotterdam
Dykes
Rhine Delta
Wooden Shoes
K.L.M.
Amsterdam

Part B

Once the country "The Netherlands" has been established students can begin to discuss any of the terms. The teacher should question to elicit responses on the less familiar words. To add interest during this discussion maps should be available so students can begin to learn some of the basic patterns, places and relationships in The Netherlands. The ideas and data discussed in this lesson or lessons will become a useful basis for concepts to be developed as the unit unfolds.

Part C

As a record of this work the teacher may decide that certain data explaining some or all of the terms should be recorded. This could be done under a variety of classifications (places, cultural terms, economic terms, etc.) or just as they appear above. One very useful record would be an "Introductory Map" on which all the places identified in this activity could be noted.

Please Remember

This introduction is not closely related to the themes chosen for this unit as a whole, nor need it be. Instead, the purpose of this open-ended approach is to start out where the students are; by giving the students the chance to tell what they know. The teacher is also assessing the level of understanding of his students in regard to "The Netherlands". Later lessons and activities will focus on resource management and graphicacy.

Lastly, teachers should not expect to be able to use this or any other method or activity without adjusting it to suit their particular approach and their classes' needs and abilities. Some of the terms suggested above may be too difficult or too easy; there may be too many or too few. The selection, number and use of terms will require the use of the teacher's judgment.

Special Resource

Many students seem very interested in the story of Anne Frank. The pocket book "The Diary of Anne Frank" is available in most book stores.

Classroom Tested

In testing this introduction with several classes in junior high schools in North York it was found that the "detective" approach worked very well. The very idea that "Columbo" works with clues, often ones which he doesn't understand, and that he has a down by building up "evidence" to identify them made the "chase" more exciting for the students. The use of the detective analogy is strongly recommended.

Explanation of Introductory Clues

Group I

1. Philips - This is one of the world's largest manufacturers of electrical equipment and appliances. It's headquarters and largest factories are in Eindhoven in southern Holland, but its plants are located throughout the world. In Eindhoven it manufactures the well-known Philishave electric shavers, radios, T.V. sets and, besides hundreds of other items, one-fifth of the world's light bulbs!

2. Europort - This is the fairly recent seaward extension of the world's largest port, Rotterdam. It is able to handle the huge new super tankers of over 300,000 tons, for one of its major activities is oil refining.

3. Hudson - Henry Hudson was an English explorer who led many expeditions to find easier passages to the Far East. One of them, in 1609, was financed by the Dutch East India Company, and led to his exploration of the Hudson River. Later, of course, New Amsterdam was founded by the Dutch, on the tip of Manhattan Island.

4. Arnhem - This is an industrial city (textiles) on the Rhine River in the Netherlands, near the West German border. In and around Arnhem was fought one of the most famous World War II battles involving parachutists and airborne tropps.

5. The Northern Venice - A nickname sometimes given to Amsterdam, because of its many canals and bridges. The term is also used occasionally for Stockholm.

6. Polder - The term used in the Netherlands for land reclaimed from the sea.

7. Edam - A city just north of Amsterdam which has given its name to a famous and delightful brand of cheese which can be purchased in most supermarkets.

8. House of Orange - The royal house of the Netherlands. The present queen, Juliana, is a member of the house, and a direct descendant of Prince William of Orange (1533-1584) considered "The Father of the Fatherland".

9. Holstein-Friesian - A breed of cows famous for their high milk production. The West Friesian islands form a chain along the north west coast of the Netherlands.

10. Shell Oil Company - The full name of this company is The Royal Dutch Shell Oil Company, and thus the connection to Holland. This is one of the world's international corporate giants, and it is owned mainly by British and Dutch interests, its headquarters being in The Hague.

11. Benelux - This is a convenient term used to indicate the three countries of Belgium, the Netherlands and Luxembourg. The economic union of these three nations led to the use of the term, and their union was a forerunner of the European Economic Community.

12. Queen Juliana - Queen of the Netherlands. During World War II she was in exile as the Nazis controlled the Netherlands. Most of that time she spent in Ottawa, only one reason for the special bond between her country and Canada.

13. Indonesia - An independent nation today, but once the richest colony of the Netherland's Empire - when it was known as the Dutch East Indies.

Group II

1. Limburg - A famous Dutch cheese, probably more famous for its strong odor than for its excellent taste. Limburg is also the most southerly province of the Netherlands, squeezed between Belgium and West Germany.

2. Zuider Zee - This was the name given to the large inland bay or sea, now greatly reduced in size by the polder developments. Dammed off from the sea and renamed the Ijsselmeer, it is now a fresh water lake.

3. Haarlem - Of course, this is a district (with one "a") in New York City, just north of Central Park. It is a region named after Haarlem, a city in the tulip bulb district of the Netherlands.

4. Delft - A famous type of blue and white china named after the city where it is still manufactured, just northwest of Rotterdam.

5. Rembrandt - Not only one of the greatest painters of the world, but also one of the many famous artists born in the Netherlands. His house is a major tourist attraction in Amsterdam.

6. Guilder - The basic Dutch currency unit, similar to our dollar, however, in value it is closer to our quarter, being worth about 35 cents. It is broken down into one hundred "cents".

7. Gouda - Another type of cheese, even more common and better known than Edam. Gouda, the city, is just outside Rotterdam to the northeast.

8. Ann Frank - Some students may have read the book or seen the movie "The Diary of Ann Frank". Ann was a young Jewish girl who was hidden in a canal house in Amsterdam for several years during the Nazi occupation. She was finally discivered and died in a concertration camp.

9. The Hague - The seat of government of the Netherlands where the country's parliament (States-General) meets.

Group III

1. Rotterdam - The world's largest port and second largest city of the Netherlands.

2. Dykes - The Netherlands, of course, has hundreds of miles of dykes as one-third of the country is actually below sea level.

3. Rhine Delta - Much of the Netherlands is found in the Rhine delta. This partly explains its extreme flatness, rich soils, and its importance in commerce.

4. Wooden Shoes - Virtually a symbol of the country, the only one better known being the windmill. Some teachers may feel the latter term will be needed by some students to identify the country.

5. K.L.M. - Royal Dutch Airlines, one of the world's major airlines.

6. Amsterdam - The capital of The Netherlands, where the Queen has an official residence, and largest city in the nation.

Activity 2 Instant Replay* (Photo Selection)

Generally resources are defined as "something useful to man". You might well think in terms of minerals, fish, forests or soils, but you should be encouraged also to include less tangible resources, such as knowledge, location or political structure and conditions. Capital, which seems very tangible, still is often forgotten when one lists "resources". Certainly resources are based on a system of values, and thus are referred to as being culturally-defined. This system of values helps a nation or any group of people make the decisions involving resources and their management.

The peoples of the Netherlands have reacted to an environment which has presented them with very limited natural resources. Over the years the Dutch have developed an economy and trade system which utilizes their resources extremely well.

Instant Replay is an activity which allows students to illustrate specific ideas about the way resources are managed in the Netherlands. The following directions should be given to students.

Part A

Your task is to select 15 slides which best illustrate factors of resource management. Secondly, your group must write a brief script of about 20 seconds in length for each slide to illustrate the ideas presented.

1. Review all of the slides
2. Agree on a method of selecting the 15 slides you intend to use
3. Each person in the group selects 1 or 2 slides and writes the script to explain the ideas illustrated.
4. Review the 15 selected slides and place them in an appropriate order.
5. Record the comments on a tape recorder for each slide. (Students should read the scripts which they have prepared.)

*This activity calls for the use of a series of slides. The slide set originally used with this unit is available from Len A. Swatridge, Program Consultant, Ministry of Education, Central Ontario Region, 2025 Sheppard Avenue East, Willowdale, Ontario, Canada. Alternate sets of photos and slides could also be used.

Part B - Presentation

The group will be given no more than 6-8 minutes to make a brief presentation to the entire class or a larger group. The selected slides should be shown and the commentary taped at that time if taping has not already been done. It is important that time be made available for the class to react to the choices made by the group, following or during presentation. The teacher and the class can add new data or opinions which could change, expand or correct the group's viewpoints.

Activity 3 - Natural and Cultural Resources, A Research Project

NOTE: These team research projects should be initiated by a two or three-day organizational period. Gathering of data and references will take place over a two - three week period while students engage in other activities.

The group presentation of the research study will take place following Activity 8.

Procedure

(1) Divide the class into teams of 5 - 6 students to explore one of the topics outlined below.

Research Topics

(1) The Europort is the gateway to Europe and lifeline for the Netherlands. Explain and support this statement.

(2) How is land reclaimed by the polder method? What methods do other countries use for similar projects? Compare 2 - 3 other nations.

(3) The Netherlands has made a vast contribution to the cultural heritage of Europe. Explain.

(4) Make an examination of the population statistics for the Netherlands to determine if the area is overpopulated. What criteria would you use to determine this question?

(5) International ownership of large corporations such as Philips Electronics, is necessary in modern world business. Agree or disagree with this idea and present data to support your viewpoint.

(6) The stable quality of life in the Netherlands is a model which other nations should examine carefully. What aspects of the culture of the Netherlands do you think should be reinforced in our society?

Culture:
a. Heritage
b. Art & Architecture
c. Customs & Traditions
d. Foods & Fashion
e. Economics - way of making a living

Research Notes

Have each person in your team prepare a series (10-15) of research cards based on references and data. On one side of the research card label the source of the information including the author, reference book, page, etc. On the reverse side of the card list the specific data, idea, chart, or information you have selected.

At the end of the 2-3 week period for preparation, have your team meet and organize your ideas for the presentation.

Prepare posters or charts to explain your main ideas. Use these, plus an oral presentation by all of the members of your group to communicate to the class your viewpoints on the topic selected.

Answer questions asked by other members of the class concerning the ideas you have presented on your topic.

Activity 4 Map Analysis

Introduction

This learning activity centers around map analysis. The purpose of the analysis is to help students identify the conflicts between urbanization and land use and to provide them with a general look at resource management techniques, as practiced by the Dutch.

Students are provided with four maps (on following pages) showing:

1. Map #1: the growth in population within the Randstad
2. Map #2: present day land use in the Netherlands
3. Map #3: polder development in the Zuider Zee area
4. Map #4: water and land management in the entire nation

This activity should involve not only an analysis of the more significant aspects of each map sheet as related to "resource management", but it should also provide some insights resulting from a study of two or more maps together.

Part A

Look over all four maps very briefly. Carefully read the data sheets (on following pages) and select one idea from each map to illustrate the conflict between the urban land use and other categories.

Each person works independently in this research stage of the activity.

Part B

Discuss the ideas which have been identified by the members of your group.

a. select 5 - 6 major ideas.
b. illustrate these factors on the overhead transparencies.

Presentation

Selected members of the group should explain graphically some of the insights developed by the group during their discussion.

It is vital that class discussion of the presentations takes place. The presentors should be questioned so that insights from the class might be revealed. The teacher and class may add new data and refine or even reject the concepts developed by the student group.

Data Sheet #1

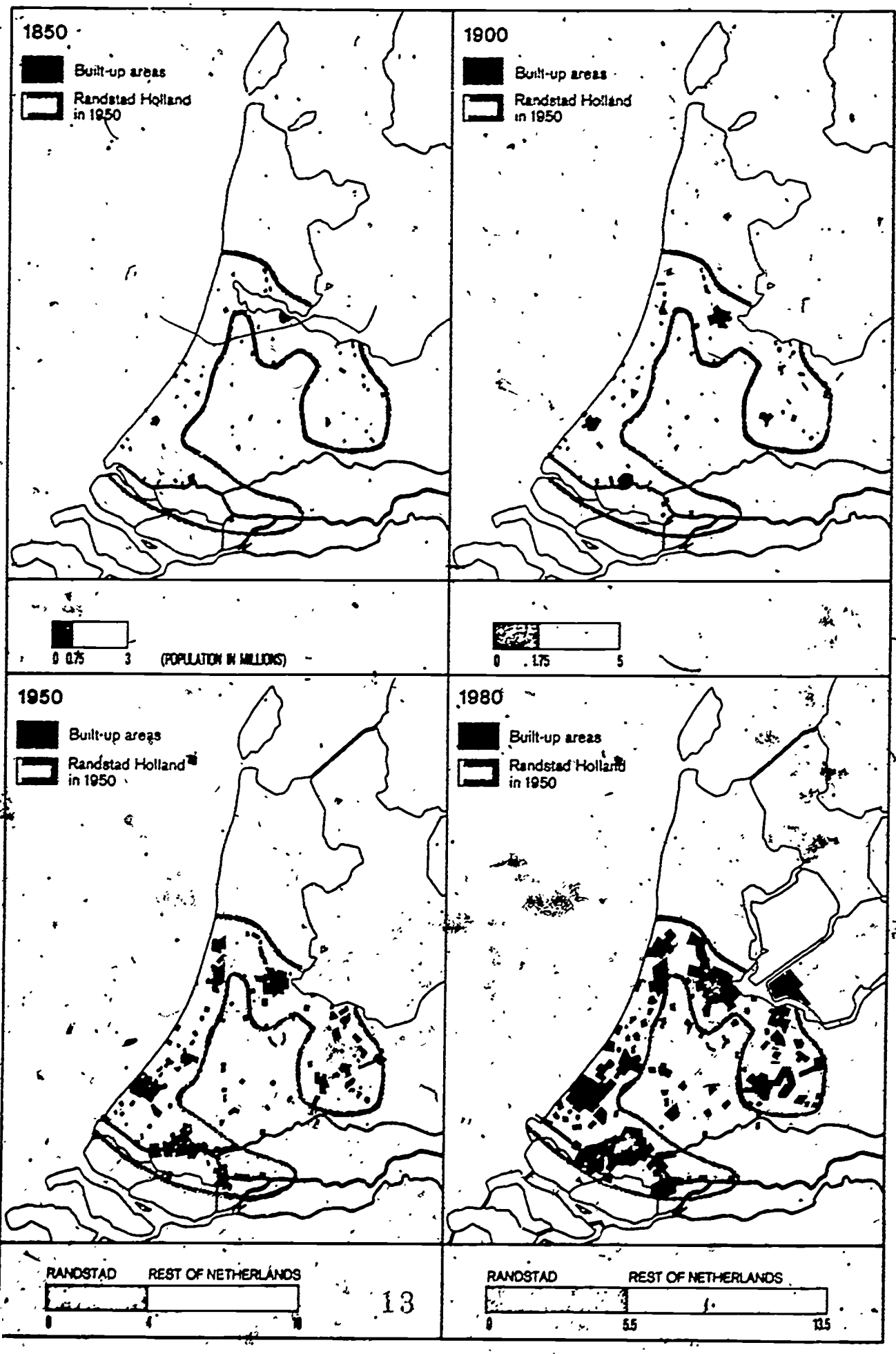
THE GROWTH OF THE WEST-HOLLAND CONURBATION

Three small charts show how, in the space of a hundred years, the villages and towns in the West of the Netherlands have spread towards each other, so that today they vitually form a single city; the so-called West-Holland Conurbation. This conurbation is 45 miles long and 40 miles wide at its widest point. The essential difference between this metropolis and, say, London or Paris resides in the fact that in the Conurbation the traditional economic functions of a world-city, such as the function of administration (government), industry and services, are not concentrated in one centre but are distributed over a number of cities separated from one another by green zones.

The towns in the Conurbation are grouped around the meadow area of the Utrecht/Holland peat region, the so-called green heart of the Netherlands. It can be seen from the diagrams below each map that the ratio of the Conurbation's population to total polulation is slowly growing.

As far back as the 17th century, the Holland region was able to boast four cities that were later to become the most important cities of the Conurbation: Amsterdam, Rotterdam, The Hague and Utrecht. Amsterdam and Rotterdam, each in its own way, owe their origin and growth above all to their highly favourable location: these cities are, as it were, the gateways to the European hinterland. Rotterdam, situated at the mouth of the Rhine, has expanded rapidly as a port thanks to the growing trade engaged in by the developing Ruhr area and the rapid industrialization during the present century of the Netherlands itself. The Hague has traditionally been the centre of government; Utrecht, in the middle of the Netherlands, forms the central point in communications between the various parts of the country.

The Government's greatest concern in respect of the Conurbation is to keep the towns physically separated from one another, so that the green heart of the Netherlands may retain its agricultural and recreational function. There are plans to build overspill towns for Amsterdam and Het Gooi in the new Southern Flevoland polder, and for the international port of Rotterdam, on the islands to the south of the city ("Grevelingenstad"). Furthermore, villages and small towns to the north, east and south of the Conurbation could be allowed to grow into sizable towns. All these schemes form part of the Government's endeavours to channel off population from the crowded West to the adjoining regions (see Chart for 1980).


1850
Built-up areas
Randstad Holland in 1950
0 0.75 3 (POPULATION IN MILLIONS)
1900
Built-up areas
Randstad Holland in 1950
0 1.75 5
1950
Built-up areas
Randstad Holland in 1950
RANDSTAD REST OF NETHERLANDS
0 4 10
1980
Built-up areas
Randstad Holland in 1950
RANDSTAD REST OF NETHERLANDS
0 5.5 13.5

Data Sheet #2

LAND USE

Cattle Farming

The high percentage of grassland is striking.
Cause: low-lying land and rainy climate.
Consequence: intensive cattle farming (West and North-West and East and South of the Netherlands.)
N.B. Arable farming, too, is partly in the service of cattle farming, inasmuch as it supplies fodder crops.
The role of cattle farming within the national economy:.
West and North-West of the Netherlands: Milk supply for the West-Holland Conurbation: cheesemaking.
East and South of the Netherlands: Industrial processing of milk to produce powdered and condensed milk. The breeding of cattle for dairly production (pedigree cattle).

Arable Farming

Arable farming is concentrated in:
a. the South-West
b. the North-East
c. the Lake Yssel polders

Based on:
I. thorough training (agricultural and horticultural schools from primary to university level).
II. scientific guidance and advice
III. rational farm management (a high degree of mechanization).

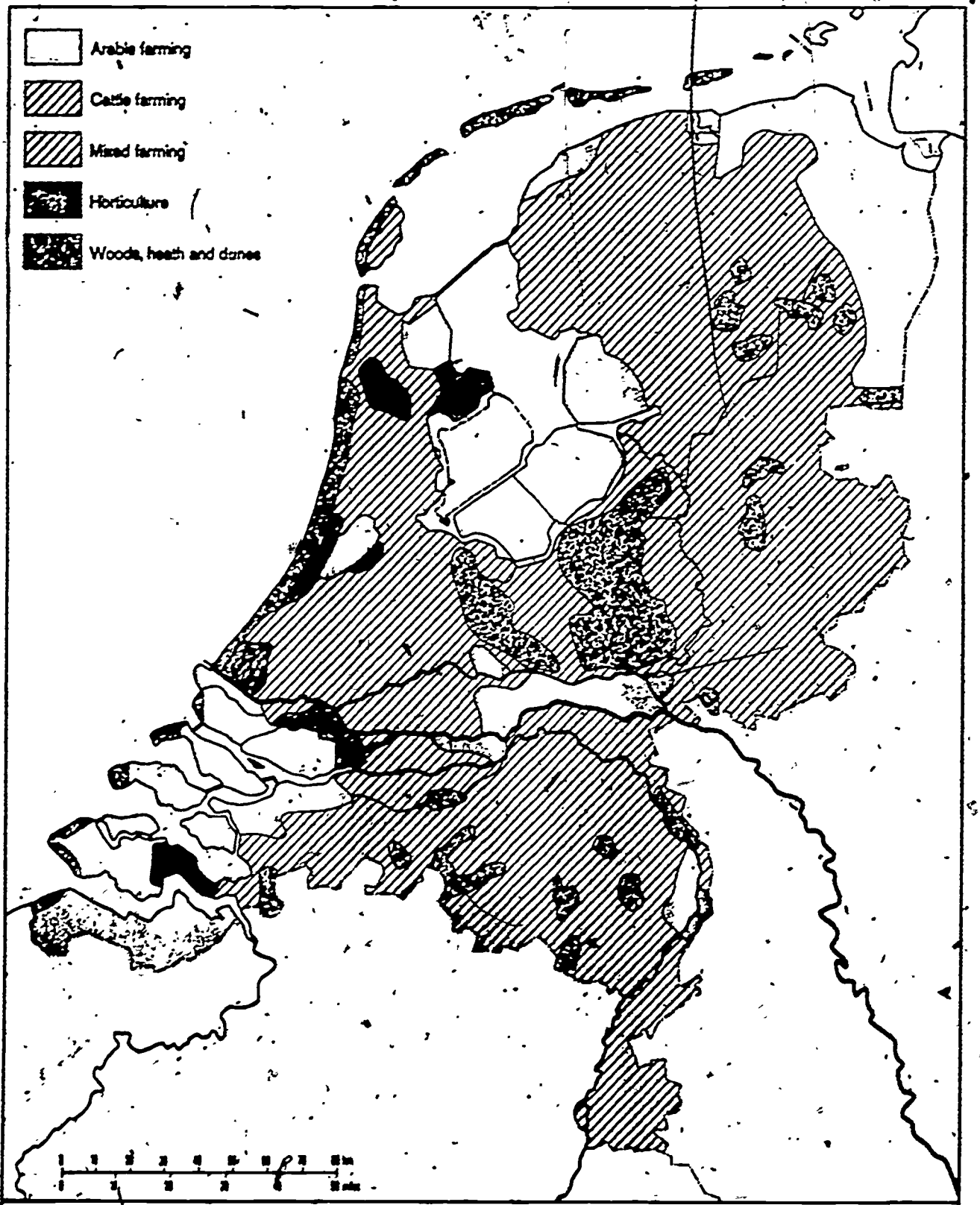
Principal products:
potatoes, sugar beet, wheat. Most breadgrain is imported. The Dutch climate is not suited to growing cereals.

Horticulture

The Netherlands has the necessary climatological and geographical conditions, namely a mild marine climate and good ground-water management. Control of the climatological factor by using greenhouses. Very labour-intensive. Crops cultivated outside during the summer are grown under glass in the winter: vegetables, flowers, fruit (large exports to the EEC countries).

Building and Roads

The country's very dense population necessitates strict application of physical planning. Nevertheless, about 12,000 acres are lost each year to non-agricultural uses. A part of the cultivable ground that is still available serves to provide recreation for the country's 13 million inhabitants. Recreation is promoted by good communications and facilities (motorways, cycletracks, footpaths, camping sites and aquatic sport centres).



LAND USE IN THE NETHERLANDS

ARABLE LAND 26%	HORTICULTURE 5%	GRASSLAND 46%	WOODS, HEATH AND DUNES 13%	BUILDINGS AND ROADS 10%

(1989)

Data Sheet #3

THE ZUIDER ZEE WORKS

History

The Zuider Zee was originally an estuary of the Rhine which, through the action of tide and wind, was hollowed out to its ultimate, almost circular, shape. This also explains the shallowness of this inland sea. The oldest drainage plans date back to Hendrik Stevin (1667).

Towards the end of the last century, C. Lely, an engineer who was Secretary of the Zuider Zee Association (its drainage having meantime become a national affair) worked out a plan that, in broad outline, was later put into effect:

a. A broad dyke from coast to coast, transforming the inland sea into an ordinary lake.
b. Along the coast of this lake, four gigantic polders built according to the old polder recipe.
c. A water basin left in the middle, fed with fresh water by the river Yssel and connected with the sea by means of sluices to permit the outflow of excess water. This fresh-water basin is used for the irrigation of the surrounding land and also helps combat salination.

In 1920 (when Lely was Minister of Transport, Public Works and Water Control) a start was made with executing the project. The 19-mile-long barrier dam was completed in 1932. In 1930 the first polder, the Wieringermeer polder, became dry land. The Zuyder Zee works will be completed by about 1980.

Use of the Reclaimed Land

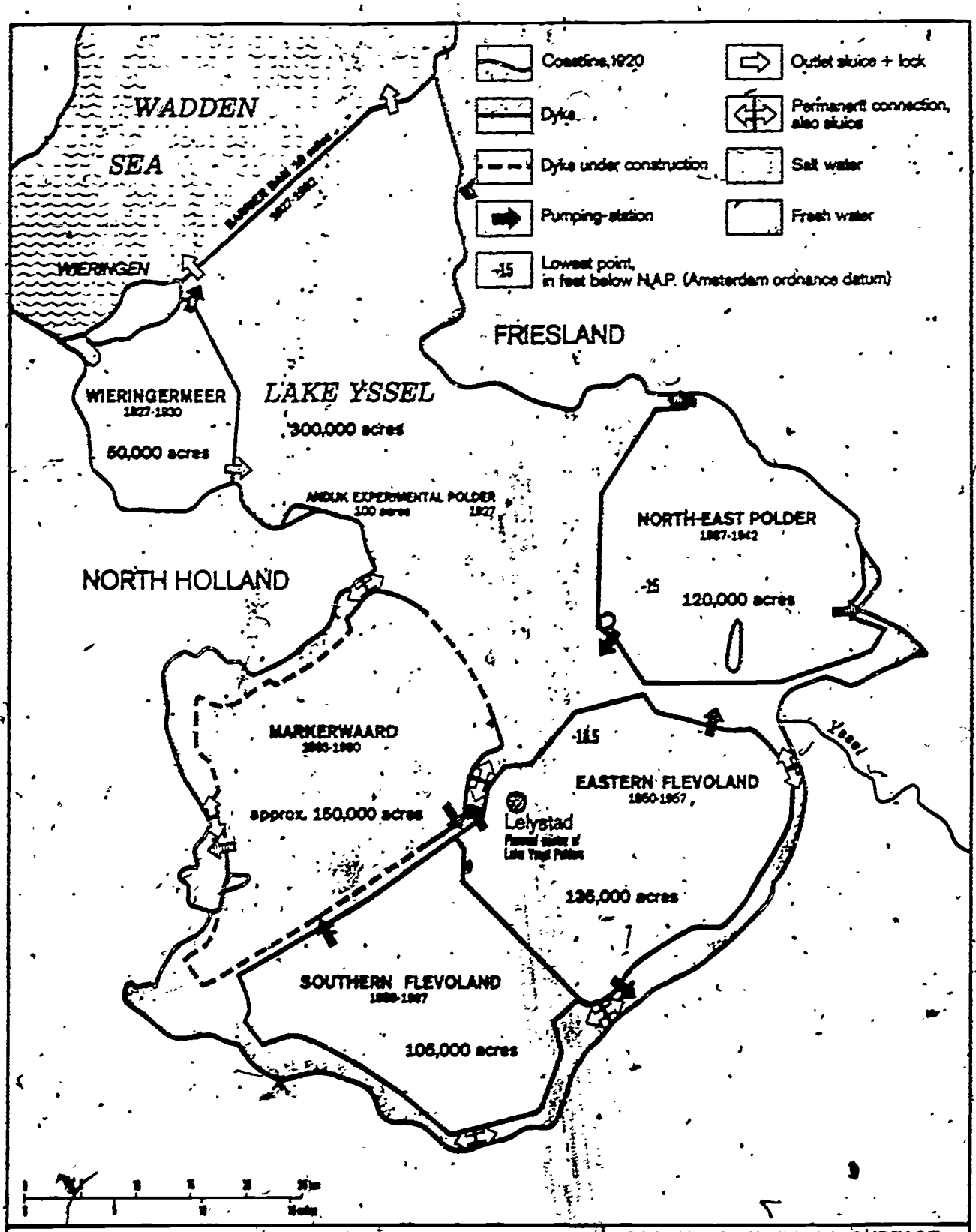
1. In the first few years the State of the Netherlands sees to the management of the new ground. It is later leased to private persons.

2. 90% of the ground is highly suitable for agriculture and is mainly used as arable land.

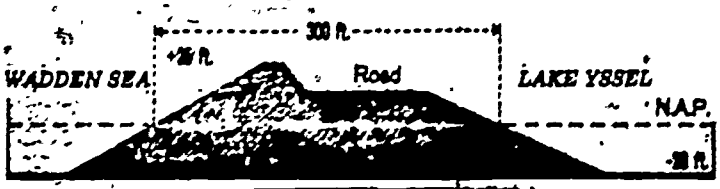
3. The polder farmers come from all parts of the country. When the land in the East Flevoland polder was being leased out, the farmers from the province of Zeeland were given first option since it was they who had been so badly hit by the disastrous flood of 1953.

4. Planning: In laying out the new polders, an attempt has been made to parcel out the land in plots of optimum size and to provide effective vegetational cover. A number of villages were planned in advance.

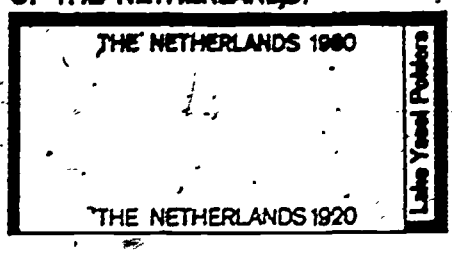
5. It was originally intended that the five projected polders (together 550,000 acres in area) should be used exclusively for raising agricultural production, but after the Second World War it was decided to use the polders also as residential areas, industrial sites and ground for recreational purposes and military exercises.



BARRIER DAM



GROWTH OF THE LAND SURFACE OF THE NETHERLANDS.



Data Sheet #4

WATER MANAGEMENT

In the densely populated and highly industrialized country of the Netherlands, great quantities of fresh water are needed every day for agriculture, industry, drinking-water supply and domestic uses. Fresh water is also necessary to combat the advance of salt water which, at flood tide, flows into the country through the estauries of the great rivers and sea-arms.

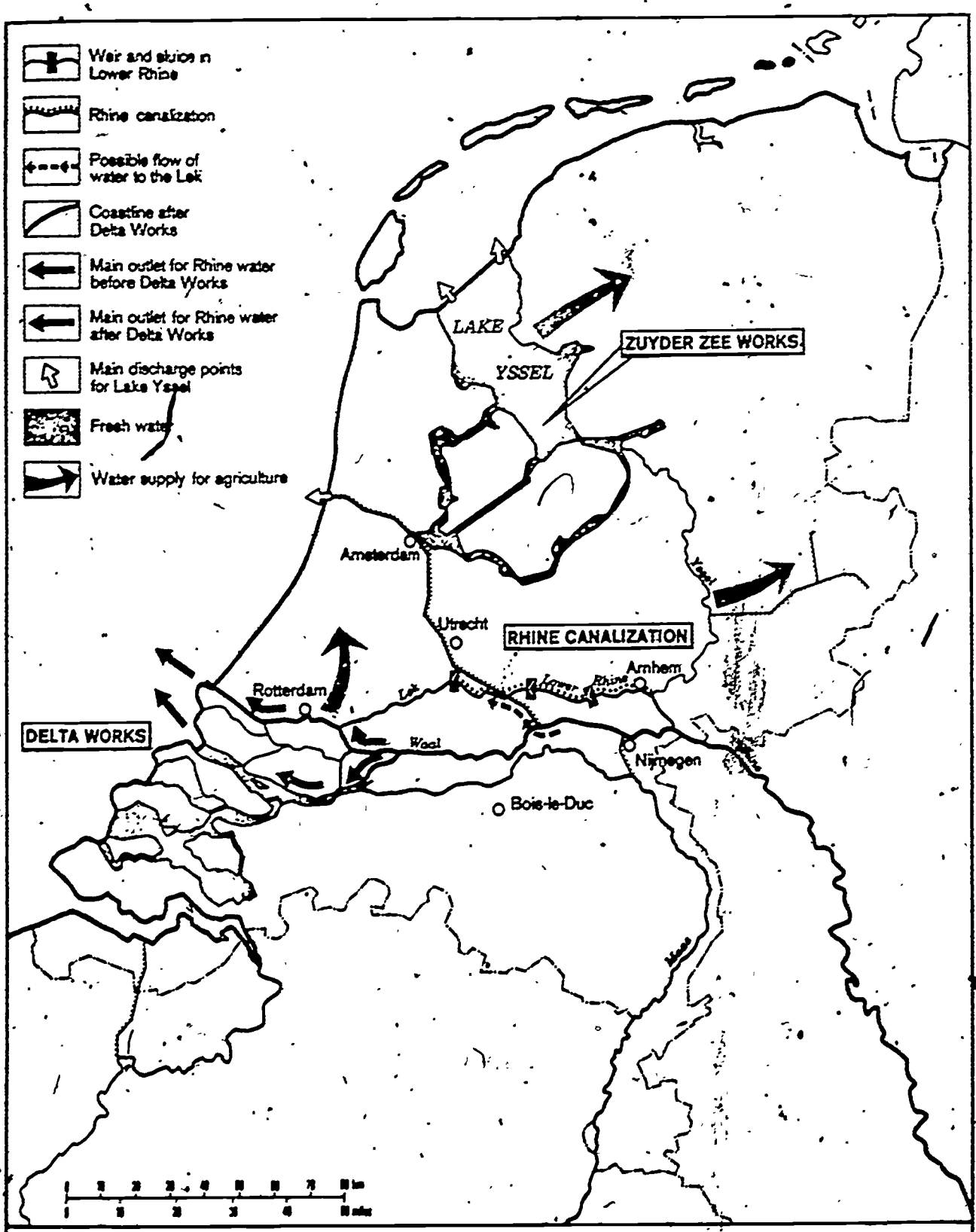
When all the hydraulic projects have been completed, it will be possible to meet the great demand for water in a more effective manner. The salination process in the South-West of the Netherlands will gradually be reduced, thanks to the creation of fresh-water basins constituted by a number of lakes lying behind primary dams. This is what has already happened in the areas around Lake Yssel, which is now the Netherlands' major fresh-water reservoir.

In the New Waterway, which links Rotterdam with the North Sea, the salt water has penetrated even beyond Rotterdam. The saltline can here be made to recede by closing the Haringvliet sluices so that the water from the rivers Waal and Maas is forced to flow into the New Waterway. This also improves the supply of fresh water to the polders and towns in South Holland, and especially the Westland horticultural area.

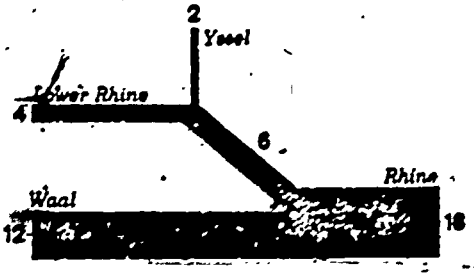
Up to now, only a very small part of the water from the river Rhine has flowed through its effluent, the Yssel, to Lake Yssel (see insert A). The water-level in this effluent river is very changeable. The building of a visor-barrier (a moveable elliptical weir) to the West of Arnhem will make it possible to improve the supply of water to Lake Yssel, as also the navigability of the river Yssel (see insert B). This will mean that, during dry seasons, the Yssel, region will be assured of a sufficient supply of fresh water, which is a factor of particular importance to agriculture.

Seeing that the construction of only one weir would make the stretches of the Rhine further to the West impassable to shipping, two further weir complexes have been built further downstream. This canalization of the Rhine guarantees sufficient depth of water for navigation at all times. It will not be possible to put the three visor-weirs into operation until the Delta Works are completed in their entirety (1978), seeing that, if at present the weirs were closed, still more salt water would penetrate into the New Waterway. The river-dykes along the Yssel and the Rhine have been raised to give the land better protection.

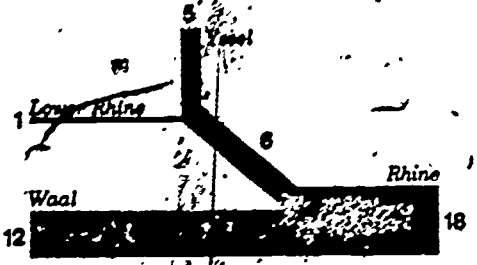
There is considerable likelihood that the future freshwater Delta lakes will freeze in the winter, but this situation can be remedied by opening the Haringvliet sluices temporarily. This is particularly important for shipping sailing between the Netherlands and Belguim.



A. Outflow of Rhine before canalization and sluice, after canalization, during high water



B. Outflow of Rhine, after canalization, at low water



Activity 6 - Amsterdam - An Impression of a City

Introduction

The purpose of this activity is to give the students an overview of the city of Amsterdam. Due to the restrictions of both time and resources an in-depth study of the city would seem too difficult for a grade 9 class. Slides and a taped commentary are suggested as a way to provide students with a sight and sound impression of Amsterdam.

Resources Required:

1. Maps of Central Amsterdam for each student (on following page).

2. Slides* selected from the set of 43 which relate to the city - These include the following numbers 15, 34, and 18 to 30, inclusive.

3. An audio tape about the city. The script is contained on the following pages.

4. The second and smaller set of slides* in the kit, which includes additional slides taken in Amsterdam. These include:
   - No. 1) - Famous Painting "The Night Watch", by Rembrandt, hanging in the Rijkmuseum
   - 2) - The Central Station
   - 3) - The Amstel River
   - 4) - The Prinsengracht Canal by day (same as Slide 25 in other set, but it is a night shot).
   - 5) - A car just "rescued" from a canal by the Amsterdam fire department's crane
   - 6) - The floating flower market, a famous tourist attraction along the Singel Canal
   - 7) - A diamond cutter at work
   - 8) - Amsterdam's harbour
   - 9) - An organ grinder, or hurdy-gurdy, on a bridge over the Amstel River
   - 10) - Canal Tour Boats - and in the background old buildings tilting on their piles
   - 11) - Narrow streets in Central Amsterdam
   - 12) - The Degynen Hof (means literally old ladies' house) - one of several park areas in downtown area. It is surrounded by apartments for ladies on pension.

* Available from Len A. Swatridge; Program Consultant, Ministry of Education, Central Ontario Region, 2025 Sheppard Avenue East, Willowdale, Ontario, Canada. Other slides or photos can also be used.

Part A

The purpose of this activity is as the title suggests, to give the students an impression of the largest city in the Netherlands, Amsterdam. The materials listed in the resources above should make it possible to to provide a very vivid and detailed "impression" to students of the city.

Though many techniques could be used, one that should be successful with most classes would be to show all the slides fairly quickly to the students virtually without comment (possibly giving only a title for each). Before the viewing of the slides the students might be told that you do intend to give them an impression of Amsterdam in sight and sound. They should be instructed to watch and listen carefully and told that it is not necessary to take notes. With some classes, of course, having them make brief notes may be a preferred technique.

Following the slide presentation, the audiotape should be played to give the students a fuller impression of the city through another medium. Finally it might be useful to give them the map of Amsterdam, let them study it for a minute or so, then show the slides once again without comment and even more quickly than for the first viewing.

Part B

To collate the impressions each student has formed a variety of techniques could be employed. One that should prove useful would be to have each student jot down the 10 most significant impressions (ideas, facts, concepts) they now have, having experienced the slides and sound tape. These ideas could then be gathered together as a class in an open non-structured manner or organized under headings such as: Site, Situation (or Location), Population, City Pattern, Industries, Tourism or Way of Life. Obviously the class could form small groups and then each one develop its own record in that way.

AMSTERDAM - AN IMPRESSION OF A CITY

Note: Record this script on an audio tape recorder for use with the Amsterdam slide series.

Ask the students to make a list of the things which they feel are unique or different, as compared to a North American.

Script For Audio Tape

To begin with, Amsterdam was a swamp. Then followed a fishing village with a tiny population of sailors and net weavers; no one had much hope for a place where plows sank from view and houses floated. Yet it became the capital and largest city in the Netherlands, its center of trade and finance, and next to Rotterdam, the country's second seaport.

For this seemingly incredible success story, there is only one explanation: the Amsterdammers, a paradoxical breed of tough men who in their depths were warm and gentle. They were sea captains, money jugglers, artists, dyke builders and farsighted planners.

Fire destroyed the city several times; the survivors simply rebuilt. Spanish occupiers could not break it in the 16th century; neither could the French 200 years later, nor the Germans during the Second World War. After each attempt, the Amsterdammers cleared the ruins from their port, the rubbish from their streets and raised their beloved city to new opulence.

Their staggering overpopulation would strain anyone's cheerfulness. Yet Amsterdam, one of the world's most crowded cities - population 820,000 plus an annual influx of 1.5 million tourists.

When it comes to business, Amsterdam is serious and down-to-earth. It contributes much to the economy of Europe. A 45-mile canal links it to the Rhine and thus to a hinterland of over 50 million people, resulting in an annual traffic of 7.5 million tons of cargo. Through canals shooting inland from the North Sea, a tonnage of 24 million comes from or goes overseas. For overland haulage, Amsterdam has 145 trucking companies. The Amsterdammer's 38-ton mammoths range the highways from Calais to Istanbul.

I came to the city expecting windmills and wooden shoes. Amsterdammers know that tourists are sentimental about these things, so in Volendam, a fishing village a 45-minute bus ride from the city center, there it is, Holland as you saw it in your school books.

But the real charm of Amsterdam is of a different kind. This is one of the world's loveliest cities, with miles of languid waterways spanned by 930 bridges - more than Venice. Look down on it from a rooftop. Its many-hued rows of frail, tilting 17th century houses look down along the canal at more than a thousand moored houseboats.

At the center of the pattern of canals lies the Dam, literally a dam uniting the city's two small rivers, the Amstel and the Ij. The Royal Palace, the very old New Church, a department store and a hotel surround this scene of concerts and puppet shows. In summer, it is a favorite site for younsters, mothers with babies and office workers. On April 30, Holland's National Day and Queen Juliana's birthday, the streets round the square are filled with the stalls and sideshows and swings of the traditional Free Market.

Not far from the Dam is the Rijksmuseum, one of 38 museums in the city, with its invaluable collection of Rembrandts, Vermeers and Jan Steens. Nearby, too, is a quarter famous for its exotic restaurants serving spicy-hot Indonesian rijsttafel - a feast of anywhere from ten to 28 dishes.

The best way to see this city of water is by launch with a guide. Listen as you look. From the steeples of nine ancient churches, carillons sprinkle melodies. From every pavement comes the tum-tum of huge hurdy-gurdies, painted with birds and flowers.

The sound of the city, however, is the thud of pile drivers hammering poles 26 to 65 feet down to the hard sand to make foundations for houses and other buildings. An ordinary house requires about 40; the Queen's Palace sits on 13,659 tree trunks, the nearby airport on at least 10,000 concrete piles. Even Amsterdam's 2200-acre woodland park, which is 13 feet below sea level, with 125 miles of paths and lanes, a bird sanctuary, swimming pools, football fields and formidable oaks, has a miniforest of ex-trees under its pavilions and bridges for support.

Next to water, the thing you see most in the Dutch capital is flowers. The parks are a riot of blooms. In spring, a half-hour bus trip brings you to the tulip fields, where blazing color is everywhere. But the best flower show rides the canals; the flower market on the Singel - encircling canal - sells everything the makers of seed catalogues can imagine. And over all, perennial clouds giving Amsterdam the pearly light which has for centuries caused rejoicing in the hearts of painters.

It all started over 700 years ago when, it is said, two fisherman wrecked their boat in the marsh that was to become the big city. They decided to settle there, bringing their wives and children. They built their houses as they did their boats, with leakproof floors. After a while there was a settlement with carpenters, weavers and millers. The first date on an official document is 1275.

First they built ships for others, then for themselves. They sailed them to Hamburg and ports on the Baltic, coming back laden with cereals, wood and beer. They became rich and, as they prospered, other nations took a look at Amsterdam and liked what they saw. The result was war - with the British, the Swedish, the Spanish and the French. Always, the Amsterdammers fought hard and when conquered they resisted, to fight again, to lose and finally to win.

Amsterdam's golden age was the 17th century, when it succeeded Venice as the wealthiest city in the world. Amsterdammers were the principal owners of the Dutch East India Company and the Dutch West India Company, whose ships were

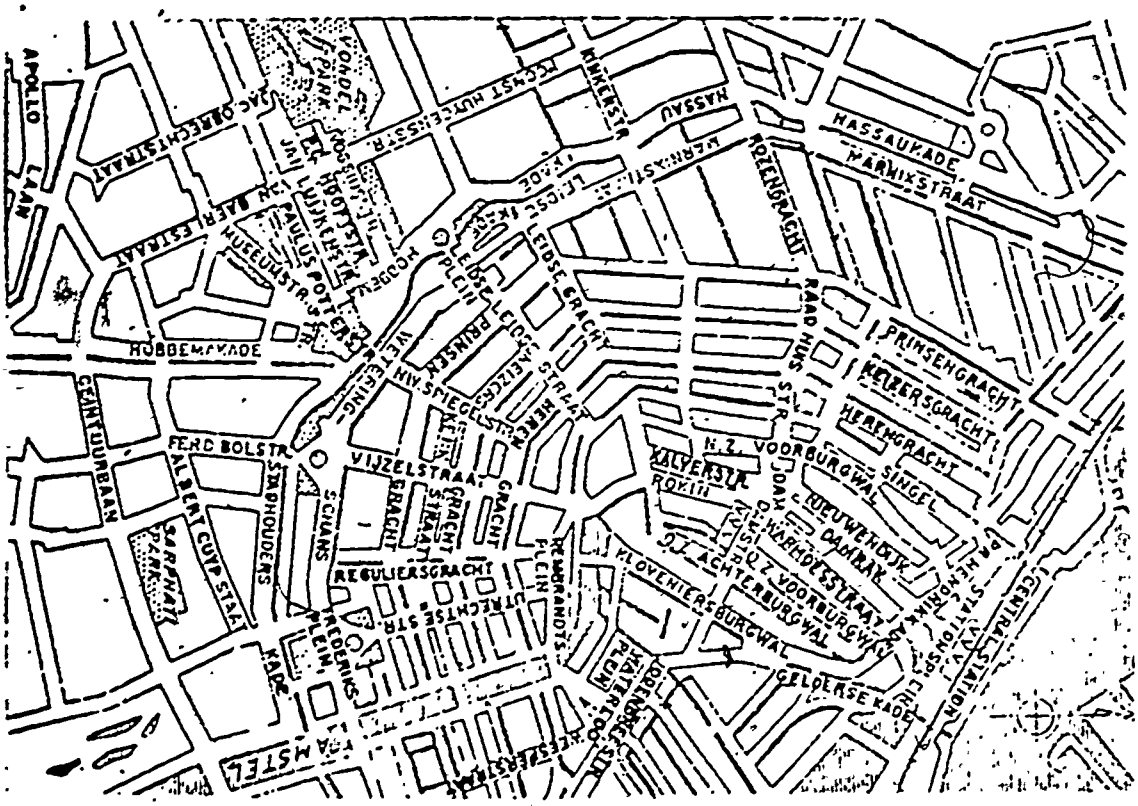
the first to reach Tasmania and New Zealand, the first to circumnavigate Australia. With fellow Dutchmen they ruled in Brazil, in northern South America, in the Caribbean, and on many islands in the Indian Ocean.

From Amsterdam a small ship, Half-Moon, left to explore a route to the Far East under the command of Englishman Henry Hudson. In September 1609 he sailed up the river to which he gave his name. The surrounding area became known as New Netherland. The settlement thus founded - later called New Amsterdam - is today New York.

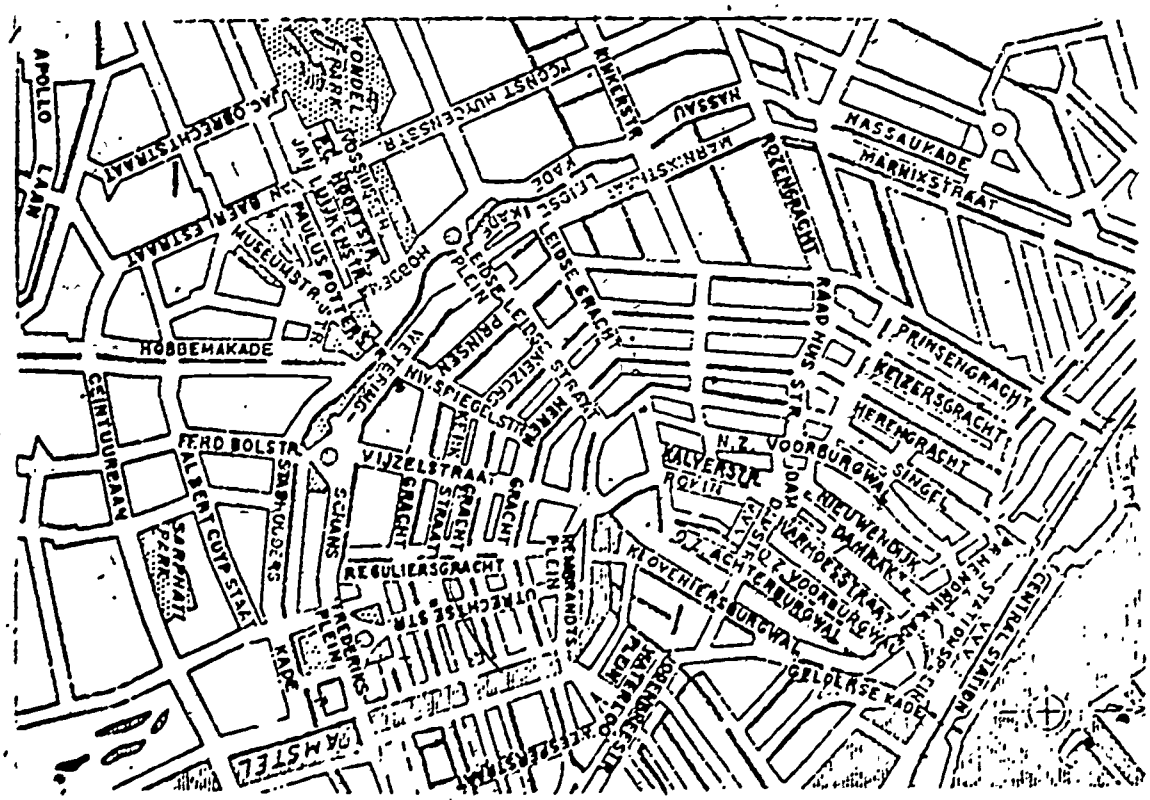
On Amsterdam's coat of arms you will find three words; Heroic, Resolute, Merciful. All three are well merited, especially the last. For prosperous Amsterdam is also compassionate. It was to Amsterdam that fugitives from intolerance came, and its citizens gladly took them in. The men and women of Antwerp, in terror of Spanish persecution, were perhaps the first. Later came Portuguese Jews, running from the Inquisition, the Huguenots, dreading another St. Bartholomew's Day and, before the last war, came the refugees from Nazi oppression.

What started as hospitality turned out to be a Dutch treat as the new-comers repaid their hosts. The Jews brought their knowledge of trading, finance and tailoring. Huguenots opened schools, taught music, clock-making and French cuisine. The men from Antwerp established Amsterdam as a world center for the fastidious art of diamond cutting. In 1972, when droves of hippies arrived - their contribution mainly limited to splashes of color and eccentricity - the city spend a million guilders to finance youth hostels, camping sites and police to see that they behaved and to protect them from muggers and pushers.

Where would you go if you were old or sick or down-and-out? In his book, The Light in Holland, Anthony Bailey gives the answer: Holland - but you can substitute for that Amsterdam.



MAP OF CENTRAL AMSTERDAM



MAP OF CENTRAL AMSTERDAM

Activity 6 - Statistics Don't Lie?

The Netherlands has a population in excess of 13 million people. It has an area 1/34 the size of the province of Ontario. The natural resources are limited and about 1/3 of the land area is below sea level. It is a wonder how the Dutch people have learned to cope with these factors.

The statistical tables included with this activity may give your students some clues about how the Dutch manage their resources.

Part A

1. Look over the following selected statistics on the resources of the Netherlands. Draw some type of graphic presentation for any six of the statistical tables. (Your group should examine all 11 tables and then decide which 6 to choose.) Your graphic may be in the form of a chart, pie graph, drawing, figure diagram, line graph, map, or any other style you wish.

2. Select a title for each of your graphics. Label the poster with a brief description of ten words or less.

Part B - Presentation

When you present your series of graphic posters to the rest of the class have one person for each graphic prepared to explain the idea further and to answer any questions.

STATISTICAL TABLES

1. Benelux Customs Union Tariff

This table shows the relative position of the Netherlands in this trade bloc.

Imports from Belgium - Luxembourg

1968 - 6,046 m. guilders (One guilder is approx. 25¢)
1969 - 7,044 m. guilders
1970 - 8,185 m. guilders

Exports to Belgium - Luxembourg

1968 - 4,318 m. guilders
1969 - 5,030 m. guilders
1970 - 5,941 m. guilders

2. Trends in trade with the United States

Netherlands Imports from U.S.	Netherlands Exports to U.S.
1968 - 3,671 m. guilders	1,578 m. guilders
1969 - 3,861 m. guilders	1,623 m. guilders
1970 - 4,735 m. guilders	1,831 m. guilders

3. Selected Agricultural Data (Metric Tons)

	1950	1960	1970
Wheat	322,000	348,000	677,000
Rye	439,000	454,000	172,000
Beans	15,000	6,000	Nil
Peas	65,000	93,000	38,000
Potatoes	2,861,000	2,745,000	3,273,000
Sugar-beet	1,667,000	2,935,000	4,739,402

4. Power Production

	1938	1958	1968	1970
Electrical (1 million K.W.H.)	3,688	13,854	33,619	40,817

	1950	1955	1968	1970
Natural Gas (cu. metres)	8	139	14,056	31,668

5. Flower Bulb Cultivation (hectares)

1966	1968	1970
11,533	11,694	12,365

6. Working Population

	Netherlands	Japan	U.S.
Agriculture & Fisheries	8%	24%	5%
Industry	42%	32%	34%
Trade & Transportation	24%	28%	30%
Other	26%	16%	31%

7. Population Density (Number of persons per sq. mile)

Netherlands	1,000
Japan	725
China	200
U.S.A.	50
Canada	5

8. Mineral Resources

Coal Production (metric tons)

1938....13,488
1948....11,032
1958....10,800
1968.... 6,663
1970.... 4,334
1974.... Nil

9. Crude Petroleum (1,000 metric tons)

Oil production began following World War II when deposits were discovered.

1945.... Nil
1953.... 820
1968.... 2,147
1969.... 2,020
1970.... 1,919

10. Salt Production (1,000 metric tons)

1950.... 412
1960.... 1,096
1968.... 2,414
1969.... 2,668
1970.... 2,871

11. Land Reclaimation—(1 hectare = 2.47 acres)

Area of the Netherlands....3,330,000 h.
Area below sea level.....1,710,000 h.
Area reclaimed..... 570,000 h.

ACTIVITY 7 - TRADE DECISION (Simulation Game)

This role playing simulation game is designed for a 30-minute time period.

The trends in the selected trade statistics illustrate a specific resource problem. Should the Netherlands continue to allow deficits to increase or should some selective tariff be imposed to limit the trade imbalance?

This situation creates the need for a specific trade decision.

Each of the members of the class should receive a transcript of the departmental summary prepared by the Dutch Royal Commission established by the Trade Minister.

In addition, the five class members should receive a brief description of a role they are to play. The person who receives the role of chairman of the committee will introduce the role title played by each person.

The discussions then center on the problem:

(a) whether a selective tariff should be imposed?
(b) if so, on which products?
(c) how this might affect trade with the other country.

The five persons involved in this simulation are members of a Royal Commission charged with the task of preparing a report regarding trade policies with Adanac. Each member of the commission has a special background and interest to bring to the discussions.

The chairman has a specific agenda designed to cover the background information needed for the group to make the trade decision.

The simulation takes place at the offices of the Trade Minister in the Hague.

The commission must decide if tariff restrictions should be imposed on imports from Adanac.

OFFICE OF THE TRADE MINISTER
GOVERNMENT OF THE NETHERLANDS

ROYAL COMMISSION REPORT
DEPARTMENT SUMMARY

TRADE WITH ADANAC:	1964	1966	1968	1970
Imports ($m.) from Adanac	101,582	143,766	178,850	277,189
Exports ($m.) to Adanac	39,933	60,489	69,052	78,923

IMPORTS FROM ADANAC (Rank Order)

1. Raw materials (non-edible and non-fuel)
2. Foodstuffs
3. Transport equipment and vehicles
4. Manufactured goods
5. Wood and wood pulp, cellulose
6. Scrap metal
7. Non-ferrous metals
8. Asbestos
9. Rubber (synthetic)
10. Potash

EXPORTS TO ADANAC (Rand Order)

1. Machines and transport equipment
2. Manufactured products (primary)
3. Foodstuffs
4. Manufactured goods (secondary)
5. Non-edible raw materials
6. Drinks and tobacco
7. Chemical products
8. Goods not specified separately
9. Animal and vegetable oils
10. Mineral fuels, lubricants

ROLE CARD 1 - CHAIRMAN OF THE ROYAL COMMISSION

Your task is to complete the agenda as outlined below and to help the committee reach a logical trade decision.

You are a political appointee and you do not have the background and experience of some of the other members of the commission. You absolutely refuse to lose your cool regardless of the committee's arguments. Say as little as possible but try to get the job done!

Agenda:

1. Introduce the commission members: a. Deputy Trade Minister
   b. Transport Minister
   c. Chairman of Export-Import Board
   d. Resource Minister

2. Ask one of the group to act as recording secretary. Select the person you believe will do the best job.

3. Define the problem of the balance of trade with Adanac using the statistics provided in the Royal Commission Report. Ask each member of the commission to comment.

4. Introduce the idea of re-export of raw materials. (Some raw materials are re-exported after they have been processed.

5. Discuss the overall question of balance of trade. (The invisible exports occurring in special exports in diamonds, gold products, etc. and the tourist industry help to balance the losses in "product" trade.

6. Compare the number, in the top ten listing, of manufactured products which are imported from and exported to Adanac with the number of raw products. (Use the second section of the Royal Commission Report.) Discuss these results with the commission members.

7. Propose that the group develop two alternative plans, one of which could then be sent on to the Trade Minister and the Prime Minister:

   Plan 1: Developing further export trade with Adanac.

   Plan 2: Restricting trade from Adanac by imposing higher tariffs.

ROLE CARD 2 - DEPUTY TRADE MINISTER

Agenda:

1. Introductions.

2. If asked, you refuse to be recording secretary on the grounds that you have done the job many, many times before.

3. These trade figures have remained fairly constant over the years relative to one another. You do not feel there is any great problem! Your department is well aware of these trends.

4. Trade is trade. You feel that the Netherlands has always had good relations with Adanac and will probably continue to do so.

5. The Netherlands, over the years, has always had a negative trade balance. You believe that the business and commerce functions, banking, shipping, insurance, etc., will continue to balance trade.

6. This agenda item is a waste of time!

7. You support Plan 1, which suggests that trade with Adanac be increased. You are in favour of more trade in general.

ROLE CARD 3 - TRANSPORT MINISTER

Agenda:

1. Introductions.

2. If asked, you will not be recording secretary - although you talk about the job for a while before you refuse.

3. Suggest that the statistics do not go back far enough. They do not relate the trends during the "turn of the century" when the Netherlands' ocean fleet was beginning to trade all over the world. (You are an old timer who has been placed on the commission simply because you have been placed on commissions for years.)

4. Re-export produces a greater demand on the Transport Ministry. Some imports are not even considered in Netherlands' figures. This practice aids the importers but does not create national development. You are an extreme nationalist.

5. You don't really understand this item and try to move on. You want to vote and make a decision. (Number of sea-going vessels is declining 1970-1,165 and in 1971-1,040.)

6. These products have always been that way - you can't change what people want merely by raising tariffs.

7. You vote for Plan 1. Support the Deputy Trade Minister.

ROLE CARD 4 - CHAIRMAN OF EXPORT-IMPORT BOARD

You are highly qualified, young, pleased to be on the Commission and you sincerely feel that something has to be done about the continued increase in trade deficits.

You feel that the commission is very important and you should not waste time discussing irrelevant issues or things which have occurred in the past.

Agenda:

1. Introductions.

2. You are willing to act as secretary or recorder of the group if you are asked.

3. You believe that the only way to solve the increasing trade deficit is to begin to deal with specific cases. The results of an aggressive trade policy with Adanac could be used, if they proved successful, with the larger United States trade imbalance. (Imports from U.S. in 1970 were 4.7 million guilders; exports to U.S. were 1.8 million guilders.)

   Adanac should be used as a test case in establishing means of decreasing trade deficits.

4. Re-export should be the bonus which enables the Netherlands to improve its standard of living. This advantage should not be wasted on merely balancing trade.

5. The same ideas apply as in item 4 above.

6. Those products in the top ten listings which are neither raw materials nor essential imports, should be taxed by increased tariffs. Other sources within the European Community may produce the trade items required.

7. You feel that Plan 2 should be adopted in order to get results and to test the theory which could then be applied to trade with the United States.

ROLE CARD 5 - RESOURCE-MINISTER

You are quite new to the government and this is your first time on a Royal Commission. You are very reluctant to state your ideas forcefully, and you feel that the other members know more and have more experience.

Agenda:

1. Introductions.

2. You are reluctant at first to act as recording secretary, but if asked you will act.

3. The problem of a trade deficit seems to be valid. You support the Chairman of the Export-Import Board, but you are a little afraid to say very much.

4. You know very little about this item. Say nothing!

5. You agree, that on a purely resource base, the Netherlands cannot hope to compete in the world market. However, processing and manufacturing of imported resources must be encouraged and continued.

6. Repeat the ideas relevant to item 5 above.

7. You agree with Plan 2, because you believe the Netherlands must encourage resource imports rather than manufactured products.

ACTIVITY 8 - PEOPLE AS A RESOURCE

INTRODUCTION

Write a very brief paragraph to explain what you mean by the term "human resource". What factors or conditions influence the type of resource that an individual may offer? Do these factors relate chiefly to individuals or to groups or soceities? When are people a liability and not a resource?

What is meant by the term "population explosion"? Is this always a bad thing? Should our nation have a larger population? Are our citizens considered to be good human resources? Why?

SLIDE SELECTION*

Preview the entire set of slides on the Netherlands. You must select 10 slides, identified by number, which directly show or indirectly indicate, the kind of human resource that is found in the Netherlands.

Write a sentence or two to describe the type of human resource you have identified and state how it contributes to society.

MAPPING PEOPLE RESOURCES

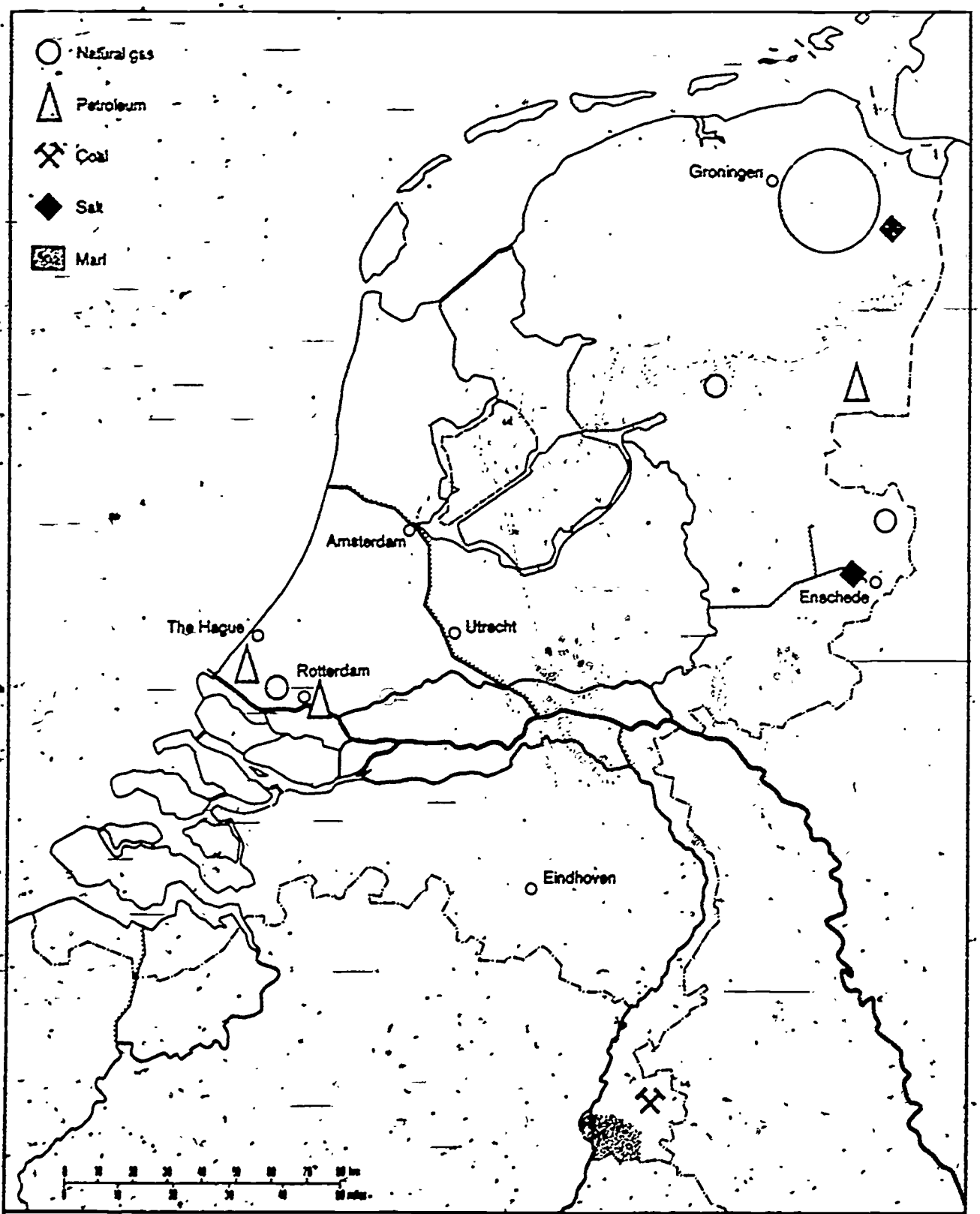
Part A: Carefully examine the maps included with this unit. Make a list of all the different types of cultural symbols used on the maps. Design a legend to represent these features on a map.

* See previous notes regarding availability of slides. Other slides or photos of the Netherlands may be substituted.

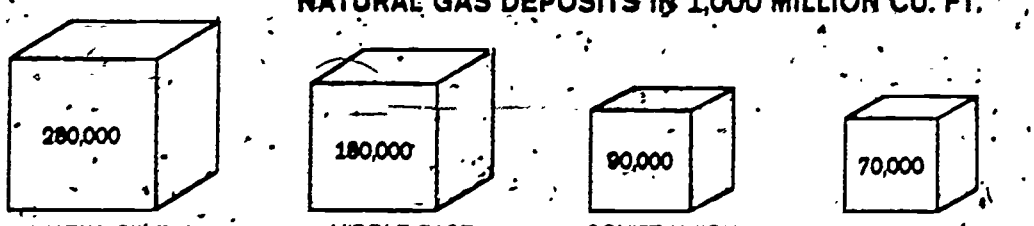
Part B: The Green Giant Map

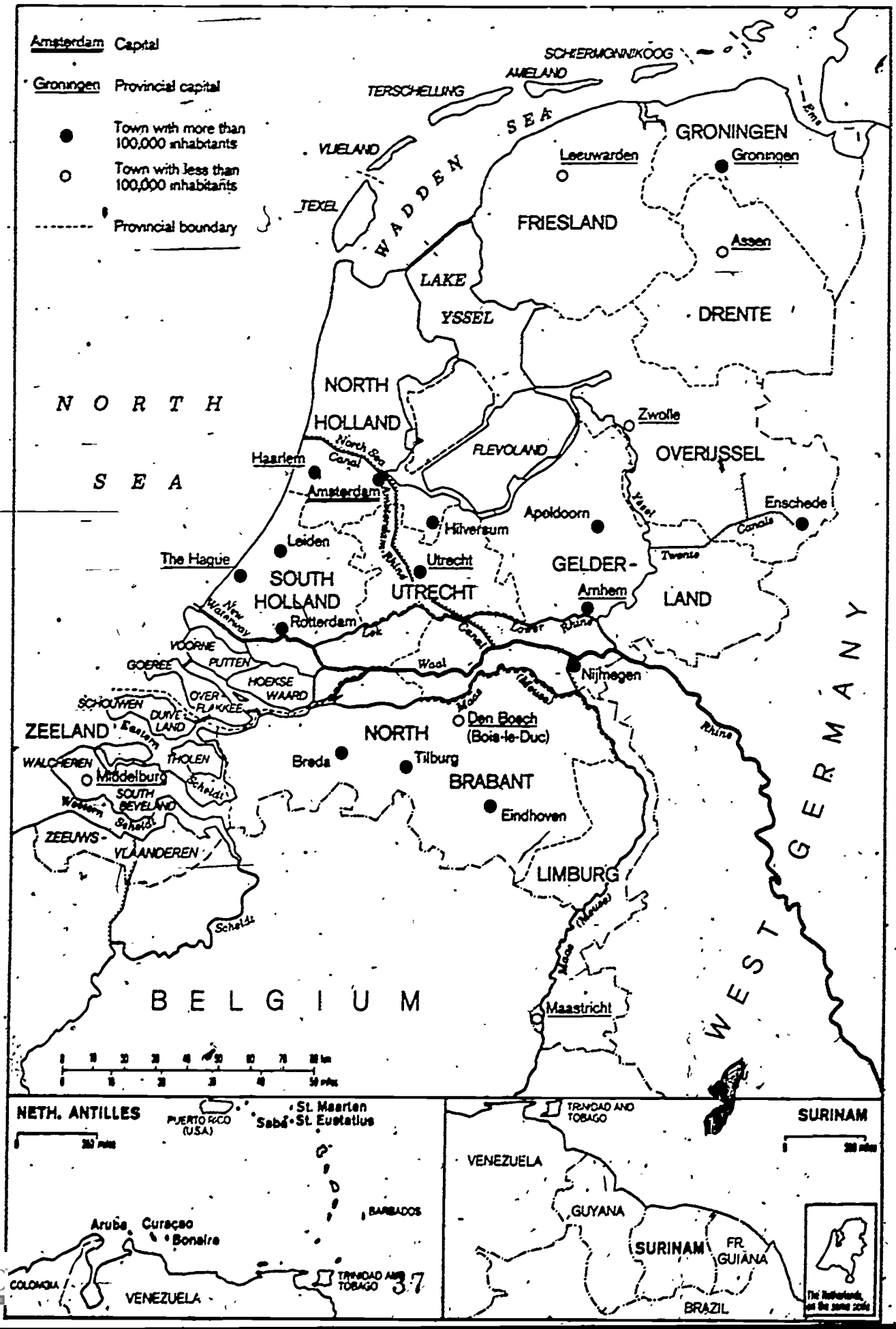
Divide the map into small portions and assign a portion of the map to each student in the class. Have them expand their portion to the full size of an 8 1/2 X 11" piece of paper. This will create a cultural map of the Netherlands approximately 5' wide and 7' long!

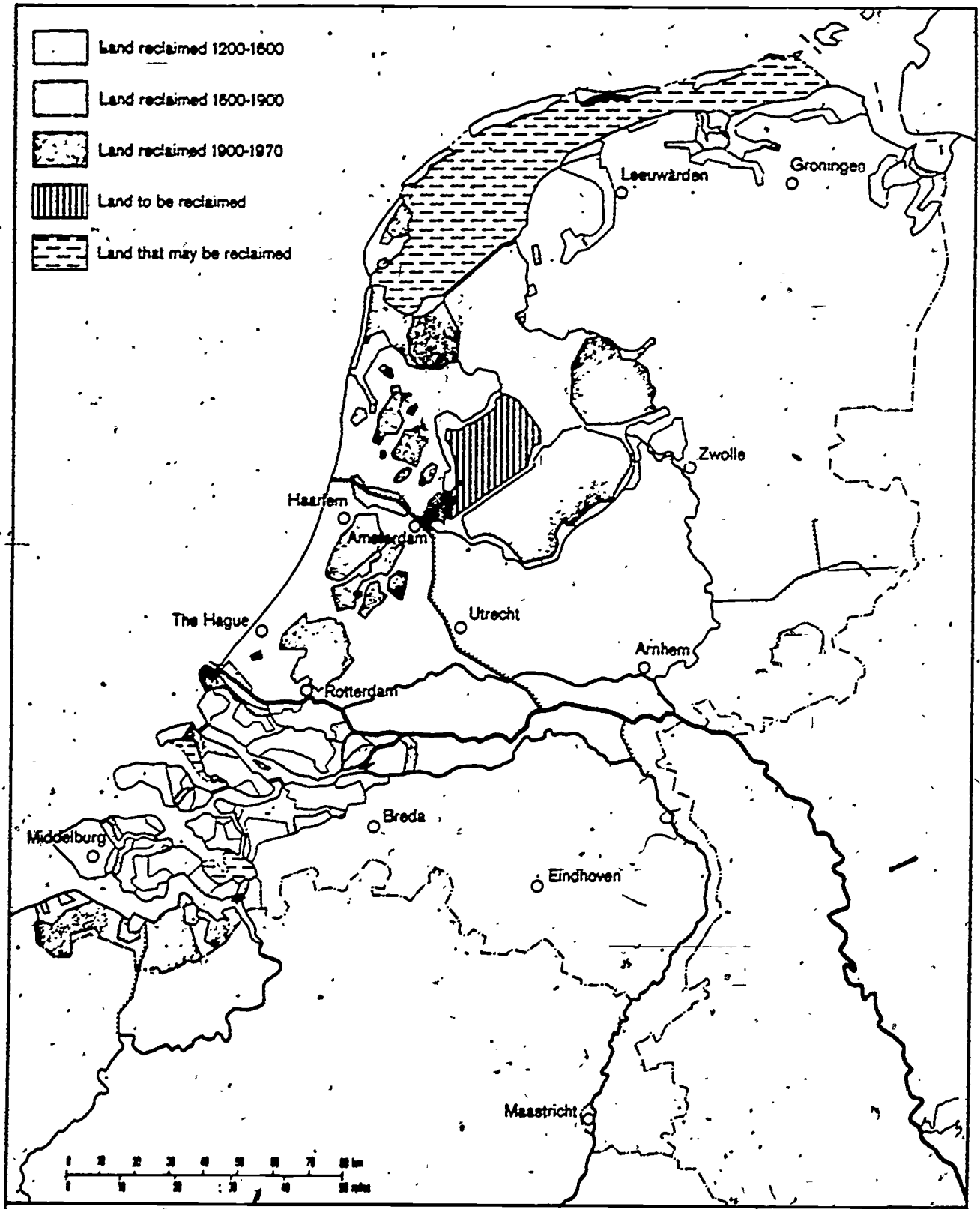
On this "giant" map, color and label the map symbols designed by the class in Part A of this activity. Pin all of the sections of the map together to create a cultural pattern for the Netherlands.

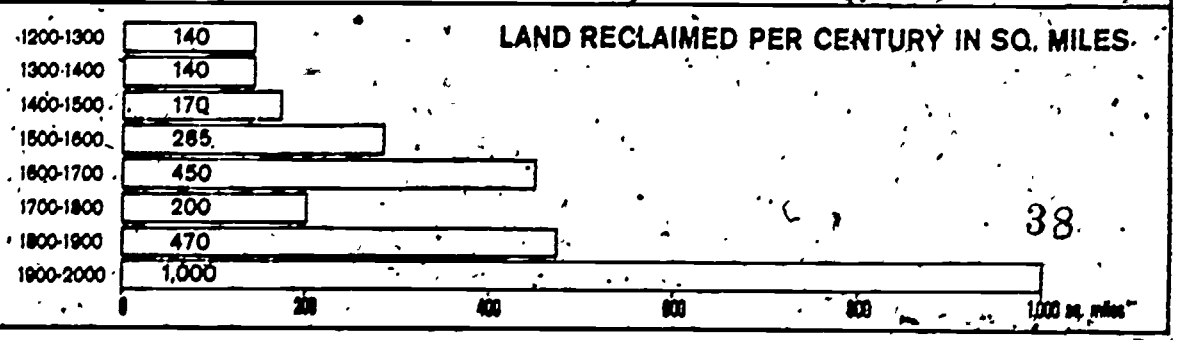


NATURAL GAS DEPOSITS IN 1,000 MILLION CU. FT.




Amsterdam Capital
Groningen Provincial capital
Town with more than 100,000 inhabitants
Town with less than 100,000 inhabitants
Provincial boundary
SCHIERMONNIKOOG
AMELAND
TERSCHELLING
VLIELAND
TEXEL
WADDEN SEA
NORTH SEA
GRONINGEN
Groningen
Leeuwarden
FRIESLAND
Assen
DRENTE
LAKE YSSEL
NORTH HOLLAND
Zwolle
OVERIJSSEL
FLEVOLAND
Haarlem
Amsterdam
North Sea Canal
Apeldoorn
Hilversum
Enschede
Leiden
The Hague
Utrecht
SOUTH HOLLAND
UTRECHT
GELDER-LAND
Arnhem
Rotterdam
New Waterway
VOORNE
PUTTEN
GOEREE
HOEKSE WAARD
OVER-FLAKKEE
SCHOUWEN
DUIVE-LAND
Eastern Scheldt
ZEELAND
WALCHEREN
Middelburg
THOLEN
SOUTH BEVELAND
Western Scheldt
ZEEUWS-VLAANDEREN
Scheldt
Nijmegen
Den Bosch (Bois-le-Duc)
NORTH BRABANT
Breda
Tilburg
Eindhoven
LIMBURG
Maastricht
BELGIUM
WEST GERMANY
Rhine
Maas (Meuse)
NETH. ANTILLES
PUERTO RICO (U.S.A.)
St. Maarten
Saba
St. Eustatius
BARBADOS
Aruba
Curaçao
Bonaire
COLOMBIA
VENEZUELA
TRINIDAD AND TOBAGO
SURINAM
GUYANA
FR. GUIANA
BRAZIL


Land reclaimed 1200-1600
Land reclaimed 1600-1900
Land reclaimed 1900-1970
Land to be reclaimed
Land that may be reclaimed
Leeuwarden
Groningen
Zwolle
Haarlem
Amsterdam
The Hague
Utrecht
Arnhem
Rotterdam
Breda
Middelburg
Eindhoven
Maastricht


LAND RECLAIMED PER CENTURY IN SQ. MILES
1200-1300 140
1300-1400 140
1400-1500 170
1500-1600 265
1600-1700 450
1700-1800 200
1800-1900 470
1900-2000 1,000
0
200
400
600
800
1,000 sq. miles