

Lecture #2, Monday 16 July 2001
11:00 - 12:30 AM

AN INTRODUCTION TO PLANNING: ROLES AND RESPONSIBILITIES

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HYDRO**TECH**
I N T E R N A T I O N A L

**PLANNING IS A PROCESS
BY WHICH
WE BEGIN WITH GOALS AND
OBJECTIVES AND, THROUGH
A SERIES OF STEPS, END UP
WITH ACTIONS FOR THEIR
ACCOMPLISHMENT**

**PLANNING SHOULD NOT BEGIN
WITH THE ACTIONS.**

**IT SHOULD BE CARRIED OUT
WITH PUBLIC PARTICIPATION
AND WITH TRANSPARENCY
NOT JUST BECAUSE IT IS 'NICE'
TO DO SO /////**

**WATER RESOURCES
PLANNING AND MANAGEMENT --
A PROCESS OF
CONFLICT RESOLUTION**



**INTEGRATED WATER
RESOURCES PLANNING
AND MANAGEMENT IS AN
ESSENTIAL ELEMENT**

Some interactions between agricultural, urban and industrial land-use and water resources

**THE LAST FIGURE SHOWS
VERY BRIEFLY HOW
COMPLICATED SOME OF THE
INTERACTIONS BETWEEN
AGRICULTURE, URBAN
AREAS AND INDUSTRY CAN
BE -- AND IT INDICATES ONLY
THOSE INTERACTIONS WITH
RESPECT TO WATER
RESOURCES**

**NOR HAVE WE SEEN HOW
THE VARIOUS IMPACTS ARE
RECEIVED OR PERCEIVED BY
THE PUBLIC.**

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**THE COMPLICATION LEADS
TO THE OBVIOUS
CONCLUSION THAT
MODELING OF THE SYSTEM
IS A MUST.**

**BUT GOOD MODELING IS NOT
SIMPLE, NOR ARE MODELS
ALWAYS ACCEPTED**

**IF THE MODELS ARE TO BE
ACCEPTED, THERE ARE
SEVERAL CRITERIA THAT
THEY SHOULD MEET:**

**1. ALL SHOULD AGREE THAT THE
MODEL REPRESENTS THE
SYSTEM.**

**2. ALL SHOULD AGREE THAT IT
CAN BE USED FOR THE
ESTABLISHMENT OF POLICIES.**

3. ALL SHOULD AGREE THAT THE IMPACTS OF CONCERN (WHICH INCLUDE NOT ONLY THOSE OF THE ENVIRONMENT, BUT ALSO THE ECONOMIC AND SOCIAL ONES) ARE ADEQUATELY PREDICTED.

**AND IF THE FIRST THREE WERE
NOT DIFFICULT ENOUGH ...**

**4. THE PLANNERS AND
STAKEHOLDERS MUST TRUST
THE SYSTEM**

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**BUT ... EVEN ASSUMING
THAT EVERYONE AGREES ON
THE IMPORTANCE OF THE
USE OF MODELS IN
PLANNING ... REMEMBER
THAT MODEL OUTPUTS ARE
NOT 'EVIDENCE' ... THEY
ARE AT BEST ONLY 'STRONG
SUGGESTIONS'.**

**SO ... THIS EMPHASIZES THE
IMPORTANCE OF PUBLIC OR
STAKEHOLDER INPUTS. CAN
THEY BE 'CONVINCED' TO
BELIEVE IN THE TECHNICAL
MATERIAL PRESENTED?**

**BUT REMEMBER THIS ... IWRPM
DEALS NOT ONLY WITH
PHYSICAL FEATURES. IT ALSO
INCLUDES ENVIRONMENT,
HEALTH, ECONOMICS,
INSTITUTIONS, SOCIETY, HUMAN
WELFARE AND TECHNOLOGY ...
PLUS A LOT OF OTHER THINGS I
HAVEN'T INCLUDED. AND THEY
ARE ALL INTER-RELATED.**

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**AT THIS POINT ... IF WE
AGREE ... WE ARE
PRESUMABLY READY TO
BEGIN LOOKING AT THE
PLANNING PROCESS.**

**THE PROCESS CAN BE SHOWN
IN THREE PHASES
FOLLOWING THE
IDENTIFICATION OF NEED**

**LET'S LOOK AT SOME OF
THE FORECASTS THAT
SUGGEST REAL NEEDS --
THE FOLLOWING WERE
SUGGESTED BY THE UN
'HABITAT' IN 1996-97.**

CURRENT REALITY

***ONLY ONE THIRD OF
THE WORLD'S
POPULATION WAS
URBAN 35 YEARS AGO.
MORE THAN 150,000
PEOPLE ARE BEING
ADDED TO URBAN
POPULATIONS IN
DEVELOPING
COUNTRIES EVERY
DAY.***

FUTURE TREND

***BY 2025, 2/3 OF THE
WORLD'S PEOPLE
WILL LIVE IN CITIES.***

**YOUR COUNTRY'S OR
REGION'S IDENTIFIED NEEDS
WILL NOT BE SO GRANDIOSE,
BUT THEY WILL PROBABLY
BE RELATED TO THOSE OF
THE WORLD'S**

CURRENT REALITY

***GREATER TOKYO
ALREADY HAS 27
MILLION PEOPLE,
SAO PAULO, BRAZIL,
15.4 MILLION, AND
BOMBAY, INDIA, 15
MILLION***

FUTURE TREND

***BY 2015, THE WORLD
WILL HAVE 33
“MEGACITIES” WITH
POPULATIONS OVER 8
MILLION AND MORE
THAN 500 CITIES
WITH POPULATIONS
OF 1 MILLION OR
MORE.***

CURRENT REALITY

***BETWEEN 1970 AND
1990, THE NUMBER
OF URBAN POOR IN
LATIN AMERICA
ALONE INCREASED
FROM 44 TO 115
MILLION***

FUTURE TRENDS

***IN COMING DECADES,
MOST OF THE
WORLD'S POOR WILL
BE URBAN, LIVING
UNDER CONDITIONS
THAT CAN BE WORSE
THAN THOSE OF THE
RURAL POOR.***

CURRENT REALITY

MORE THAN 40 PERCENT OF ALL CITIES WITH A POPULATION OF 500,000 OR MORE ARE IN TIDAL ESTUARIES OR ON THE OPEN COAST. HALF OF THE WORLD'S COASTLINES AND COASTAL ECOSYSTEMS ARE AT RISK.

FUTURE TREND

BY 2000, THE PHYSICAL SIZE OF CITIES IN DEVELOPING COUNTRIES IS EXPECTED TO BE DOUBLE WHAT IT WAS IN 1980, EXERTING PHENOMENAL STRESS ON LOCAL ENVIRONMENTS.

**A JUNE 6, 2001 ARTICLE OF
THE NEW YORK TIMES
PRESENTS AN OBVIOUS NEED
... THIS TIME IN BRAZIL ...**

RIO DE JANEIRO, June 5 — At night, the lights on streets and beaches and in parks and tunnels are dimmed. Air-conditioners in the president's office have been turned off; nighttime sports events and concerts have been canceled. Government employees may soon be forced to shift to a six-hour work day, and private companies are talking of moving production abroad for the duration of the emergency. /////

**PETER GLEICK OF THE
PACIFIC INSTITUTE ALSO
PRESENTS A ‘NEED’ ...**

**“THE 21st CENTURY IS GOING TO
START WITH ONE OF THE MOST
FUNDAMENTAL CONDITIONS OF
HUMAN DEVELOPMENT UNMET:
UNIVERSAL ACCESS TO BASIC
WATER SERVICES.”**

**AND, ARE THOSE THAT ARE
IN THIS SITUATION GOING
TO TESTIFY? PROBABLY
NOT.**

**WHO WILL REPRESENT
THEM?**

**THIS RAISES THE
QUESTION OF A HUMAN
RIGHT TO WATER ... BUT
THAT'S ANOTHER
QUESTION.**



**IN THE FOLLOWING
DIAGRAMS, WHILE YOU
WON'T SEE ANYTHING
SHOWN ABOUT PUBLIC
PARTICIPATION .. IT
SHOULD BE THERE. SO LET'S
SEE WHERE IT SHOULD HAVE
BEEN.**

PHASE I: PLANNING

(A) CONCEPTUALIZATION AND PRELIMINARY PLANNING OF PROJECTS

**(B) INFORMATION
COLLECTION AND
PROCESSING**

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**(C) PRELIMINARY
FORMULATION AND
PROCESSING OF PROJECT
ALTERNATIVES**

**(D) DEVELOPMENT OF
DETAILED PROJECT
SPECIFICATIONS**

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**(D) DEVELOPMENT OF DETAILED
PROJECT SPECIFICATIONS**

(E) PROJECT DESIGN DETAILS

PHASE II: CONSTRUCTION

PHASE III: OPERATION

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**BUT ... WHILE YOU CAN DRAW
ALL OF THE LINE DIAGRAMS YOU
WANT TO SHOW HOW PLANNING
SHOULD PROGRESS ...
SOMETIMES, IN SPITE OF THE
BEST OF INTENTIONS,
IMPLEMENTATION DOESN'T
FOLLOW. WHY NOT?**

**FOR ONE ... ABOUT THE ONLY
THING THAT IS CONSTANT IN
PLANNING ...**

... IS CHANGE.

**FOR ANOTHER, ONE OF THE
MOST DIFFICULT THINGS TO
ACCOMPLISH IS TO CHANGE
THE INSTITUTIONS THAT
OFTEN ARE REQUIRED FOR
THE IMPLEMENTATION OF THE
PLAN.**

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**BUT SOMETIMES WHAT WE
HAVE CONCEIVED IS SIMPLY
SUPERCEDED BY A BETTER
IDEA.**

**REMEMBER ... THE STONE AGE
(FOR EXAMPLE) DID NOT END
BECAUSE OF A LACK OF STONES
... SOMETHING BETTER CAME
ALONG.**

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**BUT ... AS MANY OF YOU
PROBABLY ARE ALREADY
AWARE, BEHIND EACH
ORGANIZATIONAL STRUCTURE
THERE ARE OFTEN OTHER
ORGANIZATIONS THAT ARE
INVISIBLE TO THE CASUAL
OBSERVER ... AND THEY CAN BE
MAKING THE REAL DECISIONS.**

**AND, AS A RESULT PUBLIC
PARTICIPATION AND
'TRANSPARENCY' CAN BECOME
PURE SHAMS. WE ... AS
PLANNERS AND MEMBERS OF
THE PUBLIC ... NEED TO DO OUR
BEST TO BE SURE THIS DOESN'T
HAPPEN.**

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**IF YOU PARTICULARLY
WANT INFORMATION ON
SUSTAINABLE URBAN
DEVELOPMENT, THEN THE
FOLLOWING SITE SHOULD
BE OF INTEREST TO YOU:**

**[http://www.sustainable.doe.gov
/slides/intro.shtml](http://www.sustainable.doe.gov/slides/intro.shtml)**

**WE'LL TALK LATER ABOUT
WHAT YOU SHOULD (OR
MAYBE 'COULD') DO ABOUT
PLANNING PROBLEMS WHEN
YOU BELIEVE SOMETHING IS
'GOING ON' THAT
SHOULDN'T BE.**

**[THAT WILL BE LECTURE #7,
ON TUESDAY, 17 JULY 2001]**