



COMMUNITY MODELLING MAKING SENSE OF MONITORING DATA

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ENVIRONMENTAL MONITORING

WATER MONITORING IN THE UK

- REMOTE SENSING WITH SCIENTIFIC INSTRUMENTS – SCIENCE, MANAGEMENT AGENCIES, WATER SUPPLY COMPANIES
 - INSTRUMENTS GENERATING DATA SETS FOR USE IN COMPUTER MODELS
 - FLOOD RISK
 - WATER RESOURCES
 - WATER QUALITY
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PUBLIC PARTICIPATION IN MONITORING

- CITIZEN SCIENCE
 - COUNTER MONITORING FOR ENVIRONMENTAL JUSTICE
 - LOCAL STEWARDSHIP
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CITIZEN SCIENCE MONITORING

- ASKING MEMBERS OF THE PUBLIC COLLECT DATA THROUGH OBSERVATION OR INSTRUMENTS
 - DIFFERENT GEOGRAPHICAL EXTENT
 - SCIENCE DRIVEN AND LED
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COUNTER MONITORING

- CRITICAL DRIVER – INSTITUTIONAL FAILURE TO ADDRESS LOCAL CONCERNS
- SCIENTISTS AS ACTIVISTS
- AIMS TO INFLUENCE DECISION MAKING

LOCAL STEWARDSHIP MONITORING

- ENVIRONMENTAL STEWARDSHIP GROUPS
- LOCAL MATTERS OF CONCERN
- LOCAL PUBLICS ENGAGING
 - PHYSICAL INTERVENTIONS
 - ENVIRONMENTAL MANAGEMENT

CHALLENGES:

MAINTAINING A SENSE OF PURPOSE AMONG LOCAL VOLUNTEERS

GETTING HEARD BY INSTITUTIONAL AND CORPORATE DECISION MAKERS



COMMUNITY MODELLING

RATIONALE: MODELS AS TOOLS TO THINK WITH

- MODELS IN SCIENCE VS MODELS IN DECISION MAKING

AIM: TO INCREASE LOCAL CAPACITY TO PARTICIPATE

- COUNTER THE MARGINALISATION WHEN MODELLING CREATES 'CLOSED CIRCUITS OF EXPERTISE'
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COMMUNITY MODELLING

CORE ELEMENTS:

- RESOURCE MINIMALISM
- STRATEGIC RECRUITMENT
- STANDARDISED SOFTWARE
- CONNECTING WITH DECISION MAKERS

COMMUNITY MODELLING PROCESS

- CREATION OF PROJECT TEAM (TWO ACADEMICS, SOCIAL AND NATURAL SCIENCE EXPERTS)
- LOCAL PREPARATIONS – ENGAGING RELEVANT STEWARDSHIP GROUP
- THREE TO FOUR MODELLING SESSIONS
- ARRANGE FOR LOCAL COMMUNITY MODELLING PARTICIPANTS TO MEET WITH RELEVANT DECISION MAKERS
- HAND-OVER MODEL TO LOCAL GROUP FOR FUTURE USE

AN EXAMPLE OF COMMUNITY MODELLING

- LOCAL STEWARDSHIP GROUP – THAMES 21 (T21)
- MATTER OF CONCERN – WATER QUALITY IN EAST LONDON, RIVER LEA
- MONITORING OF NEWLY BUILT WETLAND UNDERTAKEN BY LOCAL VOLUNTEERS
 - LOSS OF PURPOSE AMONGST VOLUNTEERS
 - NO VISIBLE UP-TAKE OF INFORMATION BY DECISION MAKERS

COMMUNITY MODELLING

THAMES 21 AND RESEARCHERS FROM UNIVERSITY OF OXFORD

SESSION 1:

T21 OFFICERS AND RESEARCHERS (6 PEOPLE)

- INTRODUCING AND PROBING THE INCA MODEL (WATER QUALITY)
- DECIDING ON WHAT TO MODEL

MODELLER SET UP MODEL FOR SALMONS BROOK, INCORPORATING VOLUNTEER MONITORING DATA, SOCIAL SCIENTIST ON LOGISTICS

COMMUNITY MODELLING

SESSION 2:

T21 OFFICERS, RESEARCHERS, LOCAL VOLUNTEERS (15 PEOPLE)

- SHOWING THE MODEL SET UP FOR SALMONS BROOK
- RUNNING THE MODEL (THREE GROUPS WITH LAPTOPS)

MODELLER COMPLETED THE MODEL SET UP, LOCKING SOME PARAMETERS

COMMUNITY MODELLING

SESSION 3:

T21 OFFICERS, RESEARCHERS, A FEW LOCAL VOLUNTEERS
(8 PEOPLE)

- RE-RUNNING THE MODEL FOR SALMONS BROOK STEP BY STEP
- VIDEO RECORDING BESPOKE TUTORIAL
 - HANDED OVER THE MODEL SET UP ON USB FLASH MEMORY FOR FURTHER USE TO THAMES 21 'CUSTODIANS'

COMMUNITY MODELLING WITH THAMES 21 OUTCOMES

- REGAINED SENSE OF PURPOSE AMONGST THE LOCAL VOLUNTEERS
 - MONITORING QUALITY IMPROVED
- NEW CONFIDENCE OF THAMES 21 WHEN COMMUNICATING WITH DECISION MAKERS
 - SOME FAMILIARITY WITH MODELLING LEVELS THE PLAYING FIELD

THAMES 21 CREATED OWN 'COMMUNITY MODELLING' PROGRAMME WITH INCA ACROSS DIFFERENT SITES IN LONDON



CONCLUSIONS - KEEPING PEOPLE ENGAGED

- MONITORING BECOMES ROUTINE OVER TIME AND IT IS EASY TO LOSE THE SENSE OF PURPOSE AMONGST NON-INSTITUTIONAL ACTORS
 - COMMUNITY MODELLING IS ONE WAY TO MAKE MONITORING DATA MAKE SENSE TO LOCAL PEOPLE INTERESTED IN THE LOCAL ENVIRONMENT
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