

**EVALUATING PEOPLE-ENVIRONMENT RELATIONSHIPS: DEVELOPING
APPROPRIATE RESEARCH METHODOLOGIES FOR SUSTAINABLE
MANAGEMENT AND REHABILITATION OF RIVERINE AREAS BY
COMMUNITIES IN THE KAT RIVER VALLEY, EASTERN CAPE PROVINCE,
SOUTH AFRICA**

**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF**

DOCTOR OF PHILOSOPHY

OF

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APPENDICES 1 - 4

BY

NICOLE MARGARET GHISLAINE MOTTEUX

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Appendix 1

Chapter 6: Phase One – Survey with Adult Participants

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INTERVIEW SCHEDULE: PHASE ONE – ADULT SURVEY

A. GENERAL:

I. Circumstance of Interview

Schedule Number	
Date of Interview	
Location	
Hertzog/Fairbairn	

II. Details of Respondent(s)

Name		
Sex [M or F]		
Age [years]		
Status in Household [codes]		

Codes:

1. Head of household
2. Wife
3. Son/Daughter
4. Grandchild
5. Grandparent
6. Other relatives [specify]

III. Description of Household

1. WHO IS THE OWNER OF THIS HOMESTEAD?

1.1. Name:	
1.2. Clan Name:	

2. PLEASE LIST THE PEOPLE WHO LIVE IN THIS HOUSEHOLD INCLUDING THOSE ADULTS WHO WORK AWAY AND THOSE CHILDREN NOT PRESENT BUT WHO ARE STILL CONSIDERED TO BELONG TO THE HOUSEHOLD

No.	Name	Whereabouts [codes]	Sex [M/F]	Age	Origin [codes]
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					

Codes:

WHEREABOUTS

1. (If adult) lives permanently in village, never elsewhere
2. (If adult) lives permanently in village now, formerly elsewhere
3. (If adult) lives permanently, visits village occasionally (once a year or less)
4. (If adult) lives permanently elsewhere, visits village frequently (at least four times a year + holidays)
5. (If child) lives permanently in village
6. (If child) lives permanently in village now, formerly elsewhere
7. (If child) parents live permanently elsewhere
8. Other (specify)

ORIGIN

1. Hertzog/Fairbairn Village
2. Adjacent Village
3. Other former Ciskei Village
4. Eastern Cape
5. Other province
6. Other [specify]

No.	Status [Code]	School [Code]	Work Outside Home [Code]	Type of Work [Code]	If, Employed, Former Work [Code]	If, Retired, Former Work [Code]
1.						
2.						
3.						
4.						
Etc.						

Codes:

<p>STATUS:</p> <ol style="list-style-type: none"> 1. Household head 2. Partner (wife) 3. Partner (not wife) 4. Son/daughter 5. Grandchild 6. Head's parent 7. Partner's parent 8. Head's relative 9. Partner's relative 	<p>WORK OUTSIDE THE HOME:</p> <ol style="list-style-type: none"> 1. Local (in village) 2. Adjacent village 3. Other Former Ciskei Farms 4. Other Former Ciskei Towns 5. Fort Beaufort 6. Seymour 7. East London 8. Port Elizabeth 9. Queenstown 10. Other [specify]
<p>EDUCATION:</p> <ol style="list-style-type: none"> 1. No school 2. Sub A - Std 1 3. Stds 1 - 5 4. Stds 6 - 8 5. Stds 9 - 10 6. Further education 	<p>TYPE OF WORK:</p> <ol style="list-style-type: none"> 1. Domestic 2. Agricultural 3. Mining 4. Industrial 5. Education 6. Uniform 8. Informal 9. Other [specify]

IV. Household Economy

1. WHAT IS THE GROSS MONTHLY INCOME OF EACH BREADWINNER (NOT COUNTING PENSIONERS)? [i.e., before tax, rent or any other deduction)

NO. [from the household chart]	Name:	Amount [to the nearest est rand)
1.		
2.		
Etc.		
Total		

2. WHAT ARE YOUR SOURCES OF INCOME, IF ANY?

							Candidate
Activities:	1.	2	3	4	5	6	
1. Agriculture							
2. Co-operative Agriculture							
3. Home Industries							
4. Services							
5. Informal Sector							
6. Old Age Pension							
7. Disability Pension							
8. Informal Sector							
9. Remittance							
Other [specify]							
Total							

3. DO YOU BELONG TO THE COOPERATIVE, IF YES, SPECIFY DATE OF JOINING.

No/Yes	
Date	

4. IF YES/NO WHY DID YOU JOIN OR NOT JOIN?

5. DO YOU BELONG TO ANY OTHER ORGANIZATIONS, IF YES, SPECIFY BY NAME AND DATE OF JOINING

Specify	
1.
2.
3.	
4.	
Date:	
1
2.
3.	
4.	

6. IF YES/NO WHY DID YOU JOIN OR NOT JOIN?

7. WHAT ARE THE STRENGTHS AND WEAKNESSES OF THE COMMUNITY?

8. WHAT ARE THE STRENGTHS AND WEAKNESSES OF HACOP?

9. DO PEOPLE SUPPORT IT?/AND WHY?

10. WHAT NEEDS TO BE DONE TO IMPROVE THE EFFICIENCY AND OPERATION OF HACOP?

11. WHAT ARE THE STRENGTHS/WEAKNESSES OF HACOP LEADERS?

V. CULTIVATION AND ANIMAL HUSBANDRY LIVESTOCK

1. WHAT KINDS OF LIVESTOCK DOES THIS HOMESTEAD HAVE?

TYPE:	PRESENT NUMBER:
1. Cattle	
2. Goats	
3. Sheep	
4. Pigs	
5. Donkeys	
6. Horses	
7. Chickens	
Other	

2. WHAT CROPS DO YOU FARM?

Codes:				
1. Cabbage	2. Beetroot	3. Onions	4. Tomatoes	
5. Potatoes	6.	7.	8. Other	

3. HOW MANY FIELDS DO YOU HAVE AND HOW BIG ARE THEY?

NUMBER:	
SIZE:	

4. HOW MANY FIELDS DOES YOUR HOUSEHOLD HAVE ACCESS TOO?

Number:	
---------	--

5. DOES YOUR HOUSEHOLD [1] OWN [2] RENT [3] JUST USE THE LAND, IF OTHER SPECIFY?

6. OUTLINE THE PREVIOUS SYSTEMS OF LAND TENURE?

7. OUTLINE THE PRESENT SYSTEMS OF LAND TENURE?

8. WHAT SYSTEM OF LAND TENURE DO YOU WANT?

9. HOW MANY HOUSEHOLDS HAVE [1] ACCESS [2] OWN THE LAND?

10. DESCRIBE WHO HAS [1] ACCESS [2] OWN THE LAND PRESENTLY?

1. Access to Land	
2. Own the Land	

11. IS THERE CONFLICT OR TENSION BETWEEN LANDOWNERS, LAND USERS, OR THE LANDLESS IN THE LANDLESS IN THE VILLAGE? DESCRIBE.

12. HOW DO FEEL ABOUT CULTIVATION?

1. VERY POSITIVE	2. POSITIVE	3. INDIFFERENT	4. NEGATIVE	5. VERY NEGATIVE
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13. HAVE YOU PREVIOUSLY HAD EXPERIENCE OF FARMING?

Yes	
No	

ELABORATE:

14. WHAT ARE YOUR INPUTS AND WHERE DO THEY COME FROM?

INPUTS: [codes]	WHERE:

Codes:

1. Mechanical	2. Irrigation
3. Pesticides	4. Herbicides
5. Seeds	6. Fertilizers
7. Packaging	8. Pumping Water
9. Transport	10. Other (specify)

15. WHAT DO YOU DO WITH YOUR PRODUCE?

16. IN WHAT WAYS HAS THE FARMING CHANGED YOUR LIFE?

Advantages of Farming	Yes/No
1. Spending Money	
2. Household Food	
3. Extra Money for Children's Education	
4. Extra Money for Household Goods	
5. Extra Money for Livestock Purchases	
6. Less need to rely on the environment	
7. Feeling happier to work	
8. Feeling happy to work alone	
Other [specify]	
9.	
10.	

B. RIVERINE SECTION

VI. THE RIPARIAN ZONE

1. DO YOU DEPEND OF THE RIVER FOR ANY OF THE FOLLOWING?

Variable	Cross
1. Drinking Water	
2. Household Water	
3. Garden Water	
4. Filling your Household Water Tank	
5. Irrigation	
6. Other (specify)	

2. DELINEATE THE FOLLOWING FOR [1] SUMMER AND [2] WINTER MONTHS:

1. Which sources of water do you use?
2. How long does it take to walk to the water sources?
3. What do you use the water for?
4. Describe the state of the water?
5. Who collects the water?

SUMMER:

Source: [Codes]	Time taken [Codes]	Use [Codes]	Water Description [Codes]	Collector [refer to Codes III.2]

WINTER:

Source: [Codes]	Time taken: [Codes]	Use: [Codes]	Water Description: [Codes]	Collector: [ref to Codes III.2]

Codes:

<p>Source:</p> <ol style="list-style-type: none"> 1. Big tree 2. Upper Furrow 3. Weir 1 4. Weir 2 5. Middle stretch 1 6. Middle stretch 2 7. Weir 3 8. Weir 4 9. Lower stretch 	<p>Time taken:</p> <ol style="list-style-type: none"> 1. 1 - 10 mins 2. 10 - 20 mins 3. 20 - 30 mins 4. 30 - 40 mins 5. 1 hr 6. Other
<p>Use:</p> <ol style="list-style-type: none"> 1. Drinking water 2. Cooking water 3. Washing clothes 4. Cleaning house water 5. Irrigation water 6. Other (specify) 	<p>Water Description:</p> <ol style="list-style-type: none"> 1. Sweet 2. Brack 3. Sour 4. Dirty 5. Clean 6. Stagnant

3. DO YOU USE THE RIVER FOR ANY OF THE FOLLOWING:

Variable	Cross
1. Grazing	
2. Gathering food	
3. Fishing	
4. Gathering herbs	
5. Wood for fuel	
6. Wood for building	
7. Mud for building	
8. Stones for building	
9. Grass for basketry	
10. Irrigation	
Other (specify)	

7. DO YOU THINK YOU ARE CHANGING THE NATURAL ENVIRONMENT?

Yes	
No	

ELABORATE:

8 DO YOU CARE/PROTECT THE ENVIRONMENT?

Yes	
No	

WHY?:

9. DO YOU WISH TO CARE/PROTECT THE ENVIRONMENT FOR YOUR CHILDREN?

Yes	
No	

WHY?:

9.B HOW DO YOU CARE FOR THE ENVIRONMENT?

10. DO YOU FEEL THAT ANY OF THE FOLLOWING HAVE INFLUENCED YOUR ATTITUDE TO CONSERVATION?

	Yes\No
1. Increasing poverty	
2. Land tenure difficulties	
3. Past social upheaval	
4. Present social upheaval	
5. Lack of education	
6. Lack of support	
7. Lack of resources	
8. Other	

ELABORATE WHY?

IV. WATER LAW

1. DO YOU KNOW WHAT WATER LAW IS?

YES	
NO	

ELABORATE ON WHAT YOU KNOW

2. HAVE YOU HAD ANY CONTACT WITH OUTSIDE ADVISORS?

YES	
NO	

3. WHAT DO YOU THINK IS THE BEST METHOD TO LEARN OF WATER LAW?

THE LIST OF QUESTIONS THAT WERE REMOVED FROM THE PILOT SURVEY

Question Number	Description
Question A.III.1	Identifying all household members age, gender, education levels and socioeconomic status
Question A.IV.1	Household gross income
Question A.IV.5	Membership of local organisations
Question A.IV.10	Means to improve HACOP efficiency
Question A.V.1	Number of livestock
Question A.V.6	Land tenure relationships (i.e., own, rent or just use the land)
Question A.V.12	Feelings towards cultivation (i.e., like or dislike it);
Question B.IV.1.2.3	Water Law

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Appendix 2

Chapter 7: Phase one: PRA with children and trainees

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SOME OF THE WRITTEN ANSWERS TAKEN FROM THE CHILDREN'S HOMEWORK
TASK SHEET – ONE

Instruction:

"Sit outside your house and carefully look at the watershed, the mountains, river, trees, farmlands, house"

2) Task:

Describe your what you see

Girl aged 9: In the river there are stones and water plants. In the river there are little water animals like fish etcetera. With my family, I have an interesting life. I get on well with my brothers and sisters. After my sister and I have finished cleaning the house, I take and sit and read.

Girl aged 10: It is a very pretty and productive farm. Black and coloured people live there. We farm with animals and grain and vegetables. We have drinking water on our farm that comes from the dam for the community. We plough and land during the rainy season. There are also lots of houses.

Girl aged 10: Our farm is in the Kat river Valley. Blacks and coloureds occupy it. Here there are dams built to provide the community with water. Most of the people farm with cattle, sheep and goats. The others farm with chickens. We are always friendly and polite to each other. It is very cold during winter. The frost lies white on the ground in the mornings.

Girl aged 10: Hertzog is a rural area. The roads are of a bad quality. Most of the houses are run-down and there are almost no job opportunities. Because there is no electricity, most people use wood and dung to make fire. The Kat river flows through Hertzog. Because there are no taps and running water, the people are very dependent on the Kat river. The Winterberg mountains surround Hertzog. In the winter there is a lot of snow on the mountains. Farming produce is cabbage, potatoes and pumpkin.

Girl aged 12: We struggle with water and we struggle as well with wood. But the children are very good because they don't swim in the river. In Tamboekiesvlei, we struggle very much. Because some days the shops are closed and then we go hungry. And there are many houses and animal like sheep, cattle and

goats and pigs. There are also rivers, dams and furrows with water. The grass is getting green. Our family is nice and the people are good. I like with my granddad.

Boy aged 12: My parents and I live nicely. My friends also live nicely. Our house has four rooms. Our house has a kitchen, bedroom, dining room, bathroom. Our house has two beds. And the house has tables. There is also power in our house. The house also has stoves. We had enough blankets. We have a play-cupboard and my friends play motor cars in the nice big house.

Girl aged 14: Tamboekiesvlie lies south of Stockenstroom. We farm with sheep and goats, cattle, horses and donkeys. We use the donkeys to cart our water and wood. We get milk from the cattle. There are ten pieces of land on our farm. There are two water dams on our farm. We are very friendly with each other and Tamboekiesvlei is a private farm. There are ten of together that live there. Our church's name is Mighty Revival Church.

Girl aged 14: First I drew a garden. Then I drew a flower. I also drew myself I drew a house, trees and river. My friend's name is Elvis. I play every day with my friend.

Boy aged 14: I like to go fishing. I milk cattle every morning. There are many donkeys in Hertzog. I like to work in the lands. I can also paint. I like doing school work. I also like fish. I play rugby with my friends. I help my mother to carry water. We also play "houses" with a doll. I love my friends.

Boy aged 14: It is a pretty and fruitful farm. The garden coloured flowers. There is also a river and the river has a little stream. And there is also a dam and it has water.

Boy aged 14: Our house is situated in Hertzog. I have three brothers. My friend's house is next to our house. Our house has two dams. One white inside. Hertzog is situated next to the national road. In Hertzog there are three shops. Our house has four rooms: bedroom, kitchen, dining room and the sitting room. My friend's name is Flagon. He lives in Tamboekiesvlie. My friend and I catch fish in the river. Flagon is fourteen years old. I live next to the river. I visit my friend after my housework.

Boy aged 14: I first drew a house. After that I drew a car. I was inside the house. The trees were green. I also made the river and roads. The fence went through the river. Then I made my uncle's house with gardens and vegetables. The yard of the house had trees

Boy aged 15: Our house is a big house. It is situated in Tamboekiesvlie. There are four rooms. There are a kitchen, sitting room and two bedrooms. I had six brothers and three sisters. My father had two

donkeys and three dogs. We plough our fields with the donkeys. He had also tow fat pigs. My friend's name is Goodman. I like to play with him.

* * * * *

APPENDIX 2 BOX 2	1996
EXAMPLE OF A WATER QUALITY WORKSHEETS	
A Child's Perceptions & Answers Concerning Water Quality	

NAME

TOPIC: WATER TESTS

1. Nukisa ukuba la manzi anuka kamandi okanye kakub

To smell if the water is good or bad.

► Write down if the water is good or bad

Bhala phantsi ukuba uweva enjani.

2. Jonga ukuba la manzi awenge kangakanani na

To see how clear the water is.

Write down the numbers you can see

Bhala phantsi amanani owabonayo kule nkonzo.

3. Jiva incasa yaba manzi

To test the taste of the water.

► Look at the colour of the paper.

Write down the number of that colour from the chart.

Jonga umbala wephepha ubhale inani olibonayo kule dhati.

4. Jonga ukuba kukhona ifetiliza na kula manzi

To test if there is fertiliser in the water.

► Look at the colour of the paper.

Write down the number of that colour from the chart.

Jonga umbala wephepha ubhale inani olibonayo kule dhati.

THE SURVEY CARRIED OUT WITH THE TEACHERS

The teachers perspective of: 1) conservation in the school curriculum, 2) conservation understood by the children, and 3) conservation passed from families to the children. written in Xhosa and English

(Answers given by three teachers denoted t1, t2, t3)

1. IS CONSERVATION TAUGHT AT YOUR SCHOOL?

Yes	(t1)Y, (t2) Y, (t3) Y
No	

ELABORATE:

(t1) I teach 8 to 10 year olds. In my class I teach conservation in second quarter of the school year. I concentrate on animals and farming.

(t2) Sub A is taught environmental studies. All the children in the school have to keep the school clean. The emphasis is on the practical aspects. It is not taught. It is done.

(t3) Sub A is taught general Environmental Studies.

2. IF YES, WHAT IS THE CHILDREN'S RESPONSE TO CONSERVATION STUDIES

(t1) I find that the children are not very interested in conservation in general. Their interest is captured when we discuss farming.

(t2) I find that the children enjoy environmental studies as it applies to their lives. The children understand the subject easily.

(t3) The children respond to the subject very well. We talk about their lives and we often apply it practically.

3. HAVE YOU OBSERVED THE CHILDREN PRACTICALLY APPLYING THEIR CONSERVATION STUDIES IN THEIR LIVES?

- (t1) no
- (t2) sometimes
- (t3) sometimes

4. IF YES, GIVE EXAMPLES

- (t1) I have not seen the children applying their knowledge. I often see them wasting the water of our school tanks.
- (t2) I do recall children picking up litter and throwing it into the dustbins.
- (t3) There are things that I have discussed with the children, like saving water. But, I often see them playing with the water and been wasteful. Some listen and learn and, some don't.

5. HAVE THE CHILDREN'S FAMILIES PASSED DOWN THE FAMILIES ACCUMULATED CONSERVATION KNOWLEDGE TO THE CHILDREN

- (t1) The knowledge concerning land is passed down. Very few children are taught about the general environmental concerns.
- (t2) I feel that in the rural areas, education of children is regarded the teachers responsibility. The families have many pressing economic concerns: food to eat, clothes to wear. The families view environmental concerns as a trivial issue.
- (t3) The children are taught not to all sources of drinking water as people go to the toilet there.

6. DO THE CHILDREN HAVE AN INTEREST IN A PARTICULAR THEME OR TOPIC OF CONSERVATION?

- (t1) Land
- (t2) Most aspects of the environment
- (t3) Land and cultivation

7. COMMENT ON YOUR EXPERIENCE OF THE CHILDREN'S UNDERSTANDING OF THE ENVIRONMENT.

- (t1) the children do not understand the importance of the environment. They have no respect.
- (t2) The children experience their environment all the time. They live close to the environment. They need it for living. I always see them playing in the environment, catching crabs under the stone and swimming.
- (t3) The children are taught to keep their houses clean. They use the environment for water, heat, food.

8. OTHER COMMENTS:

- (t1) I take the children into the environment when I teach.
- (t2) I also grew up in a rural area. I feel that growing up in a rural area has influenced the way I teach. I often teach by using outside the classroom examples.
- (t3) -

* * * * *

Appendix 3

Chapter 8 : PRA with adults

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**PROGRAMME FOR THE TWO DAY ADULTS ENVIRONMENTAL WORKSHOP
HELD WITH HERTZOG AND FAIRBAIRN PARTICIPANTS.**

List of aims, objectives, methods, workshop materials, tasks for the team, examples to ensure the objectives are clear and understood, prompting questions and seating arrangements

To acknowledge my role. To provide a platform for village peoples to collectively explore their understanding of, attitudes to and needs for the environment. Exploring linkages between them and the environment, in particular cause effect relationship of the villagers on the environment.

Programme Objectives:

To encourage rural people to gain a greater understanding of the attitudes to and needs for the environment.

To examine and analyse people and the environment relationships with a view to search for solutions that takes into consideration village people livelihoods, attitudes and culture.

- reporting preliminary results of the initial scientific study of the riverine resources and socio-economic survey
- exploring local knowledge, attitudes and daily needs affecting the riparian zone
- determine the needs of the environment
- understand the cause and effect relationships that occur in the environment and explore possible solutions
- understand the causes and effects incurred by humans and explore possible solutions.
- to enable the community to critically review, evaluate their actions, impact on the environment and collectively find solutions to specific problems
- to review the methods employed in the community-based inquiry
- to review my engagement within participatory philosophy

Main Roles of the Team

Angie	Photographer/video
Molly-Anne	Acting/Facilitator
Thombile	Acting/Facilitator
Vuyani	Recorder
Nicky	Facilitator/sorting props

DAY 1

Welcome all

(Time)

Feedback results again so as to establish what we are attempting to do

Introduction to how the workshop will work, entering into drama, reality, drawing,

Ex. 4. Warm ups (Time)

Aim: To welcome and introduce participants and team members

Objective To meet everybody

To relax people through giving them a chance to express why they are at the workshop, and express other feelings

Method:

'Seed mixer' game, each person given a seed for each person their once they have introduced themselves to place a seed into another pocket or cup. This will permit each person to meet each person in the group and ask each other why they are here,

Exercise 5 'Conservation' & Environmental destruction

(Time)

Aim: To share and explore the relevance for environmental management in their lives through viewing the concept of 'conservation' and 'environmental destruction'

Objective: To investigate what conservation and destruction means to them so as to deliberately look for, and investigate the reason for the environmental awareness workshop.

Method:

What does conservation mean to the people?

close your eyes,

(Team: *put on some tranquil music on*),

one by one each person in the group describes conservation

(Team: *RECORD*)

Exercise 5.B 'Environmental Exploitation'

(Time)

Method:

Ask each participant to pass the 'talking stick' in the circle. On receiving the stick either tell what destruction or exploitation of the environment means to each or pass the stick on without contributing (i.e, voluntary)

(put on hectic music)

(Team: RECORD)

Exercise 6 What Does A River Mean to Each Person?

(Time)

Aim: To focus the participants on the river environment and encourage greater understanding of the river environment through participation

Objective: To encourage participants to view the river as whole.

Method:

(put sheet of paper on wall, make pens available, start drumming, help people feel comfortable but encourage them to join in - by joining in may shift fears. shyness etc)

- Draw onto a sheet of paper
- What else does a river mean?
- What is around a river or in a river?
- In a circle chanting and walking in a circle to the sounds of drums, in turn draw in an additional element.
- Those who are old, sick or embarrassed have the choice of clapping their hands to the sound of drums or watching

(Team: RECORD)

TEA

Exercise Seven Setting the Context Or Framework Through Story Telling

(Time)

Characters or Roles:

Molly-Anne Facilitator

Thombile Wise Man - Story Teller

Vuyani Recorder

Nicky Facilitator

Aim: To investigate the participants' perceptions, knowledge of the riverine environment and to establish which elements of the riparian zone are important to the community through group interaction.

Objective: To develop a fictional context to provide a non-threatening environment for discussion and interaction.

To examine which elements of the riparian zone are important to the community.

To build on people's knowledge and encourage conscious raising through sharing.

Method:

Important for facilitator to clarify that such interactive methods are not to make people awkward but to start to work together and to encourage people to arrive at solutions. We encourage you to work together, participate so to achieve the objective set in the Report back meeting - We also encourage you to enjoy the day.

- Wise man welcomes all and introduces all into the land that lies in the Kandado Mountains to the river Inxuba.

(Identify the chief Skabuna and Mavavo and Ingoma).

- Wise man reads the story.
- Wise man points to a box that contains all the resources of the past village. It is our task today, to discover all the uses of the resources. I ask you to help in carrying out this task.
- Wise man asks the two chiefs that came forward as volunteers to open the box.

Wise man details the task:

- To understand the environment by exploring the various uses of each aspect of the resource
- Where do you collect it and why, is its accessibility.
- Who taught you about the different uses of the environment, (i.e., themselves, parents, family members or fellow water collectors).
- If, yes, do you pass down your environmental knowledge.

Divide the participants into equal sized groups to discuss its uses and report it to the wise man and the broader group of participants.

(Team: Below a list of prompting\guiding questions. Use markers to indicate their use, i.e., yes/no markers; less/more markers)

- Do you use the resources a lot or a little?
- Do any of these resources bring in money?
- How much money do the resources bring into the household, a lot or little?
- Have any of these resources run out?
- Have any of these resources increased?

(Team: RECORD)

LUNCH

Exercise Eight What is Important for the River

(Time)

Characters for drama one and two :

Children	River resources and some farmers kids.
Molly-Anne	Farmer, Sanuse and Facilitator.
Thombile	River.
Vuyani	Recorder.
Nicky	Facilitator.

Aim: To bring attention to the need for mutual interdependence and cooperation between villagers and the environmental resources.

To promote an understanding that each can effect one another.

Objective: To build on people's knowledge and workshop learning so to encourage them to investigate best management practices that are of benefit to the environment and themselves.

To develop a fictional context which provides a non-threatening environment for discussion and interaction.

(Team: Call children from school & prepare them)

DRAMA ONE

Question: What are the needs of the river?

To put the people and environment into context of the story. Explore people's relationship to river conservation and use in the past and currently.

Method:

- Children come in and act the story out, i.e.:
- In role the 'Sanuse' asks what the river looked like years ago.
- Discussion

(Team: RECORD)

- River whistling happily.

(give the river a voice music on and place blue cloth on floor as river and indicate aliveness through moving the river)

- 'Sanuse' probes and inquiries of the river resources along the river and their condition (good/bad, Why?)

(Team: RECORD)

- If adults choose not to describe the river resources then the children open up and describe their character (i.e. tree, plant, flower).
- Alternatively, a child describes his/her condition as a resource (i.e. "healthy") followed by another child gives reasons to why they are healthy (i.e., "people only take what they need and renew the environment").
- The river speaks - saying that the old 'Sanuse' is walking towards the river.

(At this point children start quietly drumming)

- 'Sanuse' walks towards the river with her children and describes her life and the village. She tells the participants at the workshop of her ten children and that her family relies on ploughing and farming away from the drinking sources. She fetches water for her family with the help of her children. She explains that it is their custom to ask the ancestors permission to use resources. At this point the 'Sanuse' reaches the edge of the water, bends slowly down and starts praying to the ancestors. Kneeling there she feels in her deep pockets for her customary beads that are placed near that edge of the river in gratitude for the water and other resources she takes for her household. Then in song she moves homewards passing the fields and walking with her children.

(Team: put out bends for drama, ask people to sit in a circle, and give assistance to children)

Stop drama and invite people to comment and reflect, some starting questions:

- What is different to day?
- How did the 'old' systems protect the river and ensure resources for today and the future.

(Team: RECORD)

DRAMA TWO

(Time)

Look, the river black, grumbling, coughing and choking the plants.

(Dying resource played out by children, cover river with black cloth, sad drumming)

- Appeal to the participants - what has happened, why, how?

(Team: RECORD)

-If adults do not enter into the debate concerning the changed environment and the possible reasons, then, the children come into role. Each child gives their own reason to why the river environment is dying and depleted.

(Team: RECORD)

- A farmer wearing blue overalls (borrowed from HACOP) comes in with his large family (children from the school) come in. The farmer complains about his circumstances, shouting and blaming his children as he nears the river. The farmer groans about having no money, no resources, too many lazy children. He speaks of time wasted collecting resources when he could be at home with his friends. He orders his children to collect food, firewood and water. Telling them to hurry and stop dreaming. He bends down at the river and starts to wash his clothes, put a fishing line in and fill buckets up of water. He comes easily tired and decides to finish his task in the afternoon. He orders his children to carry what they have collected in order for them to sell them for money. As they make they way home he continues to blame and criticise his children.

- As soon as the farmer leaves the room, the children and the river make a plea to the participants asking what could they do to change this situation as their resources are getting less and have already lost many of their river friends. They welcome the participants to consider their desperate situation and come up with suggestions and solutions.

At this point the children, the river starts to facilitate and encourage the participants to shift from being spectators to actively participating in this problem.

(Team: RECORD)

Within 10 minutes the farmer returns with his children to the river. This time he is carrying his big axe and greedily rubbing his hands talking about what he intends to take from the river environment. The children acting as resources plea for the adults to support them in trying to reason with the farmer and his children. At this point the children and participants may be able to start posing better conservation methods which the farmer to adopt. The farmer may consider these options, rejecting and accepting them as he sees appropriate. The participants and children need to seek to understand the farmer's situation and find appropriate ways for him to start changing his practices, if however, they do not the farmer will continue to exploit the environment.

(music heavy, drumming hard, black cloth representing the river)

If the farmer becomes satisfied with the participants' solutions and suggestions then the river returns to a blue river and the farmer is seen to implement the participants' suggestions. Taking the play, possibly to a point where environment returns to being healthy.

(music changing to happy, blue cloth)

End of Drama - Reflect on the drama. Compare drama one and two. Do they recognise any elements in the play that are taking place in the village.

(Team: RECORD)

Farewell

- Pray and thank you to all who participated.

END OF DAY ONE

Materials Requirements, Things to Do & Costs (for exercise 8 - DAY ONE)

- White card for drawing the river - (Approx. Cost R5)
- 12 fat pens of different colours for participants to draw and write with - (Approx. Cost R20)
- Card to outline the land in which the dramas took place within - make two posters
- Card to make markers with - (Approx. Cost R5)
- Get the story translated into Xhosa - (Approx. Cost R50)
- Obtain blue and black cloth for the river - (Approx. Cost R0)
- Organise children - phone to ask permission from Headmaster and grassroots worker to follow it up with the children.
- Arrange for farmers overalls, beds and a traditional outfit for the drama - (Approx. Cost R0)

BROAD AIMS AND OBJECTIVE FOR DAY TWO

Aims:

- To encourage people to examine the river's condition.
- To establish the cause-effect relationships between the villagers on the river.
- To encourage people to explore the causes of detrimental cause-effect relationships.

Example: The land may be cultivated near the river for economic and land fertility reasons. The causes of cultivating close to the river may be evidence of soil erosion and poorer water quality due to seepage of fertilisers from the fields. These local impacts may be seen as having an impact on down stream people who experience increase sediment levels and poor water quality.

Objectives:

- To establish the condition of the river by recording the good and bad aspects in riparian zones.
- To establish the cause-effect relationship between the villagers and the river and seek to ascertain the reasons for the causes, and the effects of the causes on others (i.e., down stream users).
- To demonstrate cause-effect relationship occurring locally that is potentially conflicting
- To enable river users to understand the down stream users' predicament and thus seek to take responsibility through ensuring local river management measures.
- To establish if education, lack of resources, poverty is a problem.

DAY TWO

Exercise 9

(Time)

Characters

Molly-Anne	Facilitator
Thombile	Facilitator
Vuyani	Recorder
Nicky	Facilitator

Aim: To understand and evaluate the river system.

Objective: To build on workshop discussions and undertaking a joint inspection of a river site.
To raise awareness of cause-effect relationships concerning the condition of the river.

Method:

- Villagers are asked to take on the role and identity of a 'river scientist'. They are asked in which section of the Kat River they would like to undertake a transect walk.
- Forms are given to the villagers upon which to record their observations on cause-effect relationships and give reasons. The forms have three columns with the following headings (1) object, (2) condition either good or bad and a corresponding (3) explanation of the cause of the good or bad aspect.
- Team members to accompany the 'river scientists'. The facilitators' role is to help participants who could not read nor write and also to probe, listen and encourage group discussions at the river site.

(hand out transect forms)

- On return to the project room participants will be asked to make drawings to illustrate their findings in a group to prevent duplication of the same theme, rather seek to obtain multiplicity of the cause-effect relationships observed along the river.
- Once the groups have finished their drawings to ask them to present them to the whole group.
- Positive cause-effect pictures will be fastened to a blue cardboard and the negative to a brown cardboard.
- The facilitators continue to provide support within each group.

(Use drums to switch participants attention between each exercise; hand out card for exercises, pens, pins, calite boards - NB middle size cut card for causes, small size card)

(Team: RECORD)

TEA

Exercise 10

(Time)

Characters or Roles:

Molly-Anne	Facilitator
Thombile	Facilitator/Recorder
Vuyani	Recorder
Nicky	Facilitator

Aim: To demonstrate a ‘real life’ cause-effect relationship occurring between an upstream village (Hertzog) and a downstream village (Fairbairn).

Objective: To allow participants to appreciate the concept and needs of the integrated catchment management (ICM).

Method:

Constructing the River.

- Team set up the homemade simulation model of the river at the beginning of the day - form banks with stones and sand, add branches.
- Use the plastic toy animals, people, cars, houses and a bridge to represent a rural village
- Have that water container (fill with water prior leaving Grahamstown) at one end to simulate the Kat Dam and a bucket on the other to collect the water.
- Play the taped music of frogs croaking in the background to set-up a river scene.

The Exercise with the Participants:

- Divide participants into an upstream and downstream group, each group comprising of a mix of both Hertzog and Fairbairn people.
- Ask for a volunteer to act as the ‘dam manager’ that regulate the water flows by turning the tap on a plastic water container when he feels like it - he makes his own decisions.

- Set the scene which is framed in context of the story told on day one by the wise man, in the land of ‘Kandodo’ (put up poster saying ‘Kandodo’).
- Explain that the down-stream villagers are preparing for Ingoma’s celebration of manhood which requires them to collect ‘sweet’ water from the “Inxuba” river to make Xhosa beer in honour of Ingoma.
- The up streamers carry out a usual day in the village which involves activities such as collecting firewood, farming, irrigating and washing clothes (use drumming to indicate the hour of the day).
- Make known that the game has started and for them to carry out their given roles
- Bring back into reality, reflect on the exercise. Does it reflect or correspond to up-stream down-stream actions relations. Explain and Why?
- If, participants struggle to reflect, consider re-playing the exercise.

Materials Requirement and Costs for Exercises 9 & 10

- Design, translate in Xhosa and photostat work transect sheets with columns for (1) recording of the object, (2) describing if the condition is good or bad, (3) a corresponding explanation of the cause of the good or bad aspects - (Approx. Cost R10)
- Two sheets of white card, one sheet of brown card and one blues card. Glue the brown and blue card on two the white card to represent the good and the other the bad river - (Approx. Cost R5)
- 4 sheets of card for participants to draw their findings from the transect walk on. Buy 2 different colours & cut the two different colours into different sizes.(Approx. Cost R5)
- Ask to borrow two sheets of calcite from Michelle (Approx. Cost R0)
- Pins to stick participants’ pictures and works to the card
- Guttering (approx 2 m), make metal base that fits the guttering and wide enough to build up the environment with sand/soil, plants, stones, animal refuse, sticks, surf, dirty dishes, appropriate containers for water collection, spade for cultivation, plough & tractor (toy), clothes for washing, river sand for building, rocks for building, animals near the river, fire wood - branches versus chopping a tree, roots for medicine, etc. - (Approx. Cost R15)
- Find a water container to transport the water and a mug - (Approx. Cost R0)
- If drama needs to be re-played ensure there are additional resources to make up the environment.

Exercise 11 Court Case (Time)

Characters or Roles:

Molly-Anne	Judge
Thombile	Judge
Vuyani	Recorder
Nicky	Facilitator

Aim: For people to be critical of their action and seeking solutions that could be locally implement.

Objective: To examine riverine behaviour.
To encourage people to review their actions and the reasons for their mismanagement of the riparian zone.
To shift the discussion from them and they to actions undertaken by the person him\herself.

Method:

- Refer to the drawings of the transect walk & the issues that arose from the artificial stream.
- Ask for a volunteer to record all the opportunities and threats from the 2 day exercises
- Present as court case.
- Ask participants to take on a pseudonym and provide changing their identify through using a symbol, ie by putting on a hat - to prevent the people feeling offended or hurt. Stressed that this exercise is not designed to accuse or blame people but to see environmental problems in context of their action framed within their broader social context and encourage self-examination thinking.
- Divide the participants into two, the defenders and the witnesses, each person is asked about their action in the environment and why they did they cause harm, i.e., maybe there is no rubbish dumps, etc. Roles are changed those who were the witnesses become the defenders.
- The judge gives it over to the jury who list the common elements and themes pertaining to people's action and reasons for them.
- The judge decides that he will forgive the people, he/she will not send them to jail or fine them on one condition that they find solutions to that would ensure that the environment is in a healthy state.

(Team: RECORD)

(Help, with the reading and the recording, put a sheet of paper up, pens, change the room, give people a symbol to wear)

Exercise 12 Solutions - Action Plan

(Time)

Characters or Roles:

Molly-Anne Facilitator

Thombile Facilitator

Vuyani Recorder

Nicky Facilitator

Aim: To encourage them to seek appropriate and achievable solutions through setting and developing a framework to facilitate a solution to identified problems.

Objective: To record problems, prioritise and work out a possible action plan.

Method:

- The judges in the mock court case ask people to form two groups to discuss issues listed in the court case and to explore solutions to each.
- Each group presents their priority problems, and possible actions.
- Together people select 3 actions, preferable one achievable in the short run to build a sense of community and satisfactory results.

(Team: RECORD)

Exercise 13 Farewell

- Pray and thank you to all who participated.

MY LIST

Phone Calls:

Tomblie 321561; Molly-Anne; Angie - set up team

Vuyani - for the names & numbers of people attending workshop; going through objectives; starting time 9: 30;

Find Accommodation for 4 people:

Katberg Hotel @ 0404 - 31151

Mpofu @ 041 - 95 -2115

Jean @ 321418

Organise the Building of Stream:

Establish who can make it (Engineer Clive/Plumbing Andy Harding)

Payment and collection

Translation of the Story ask @ Xhosa Dept:

Collect the translation and give it to Tomblie

Book Transport:

Venture carrying 4 people for 3 days

Collect the Venture

Meet:

Molly-Anne & Tomblie @ 10:30 @ ISER

Book Camera & Video

Ask John and book them

Meet with People to Review Programme

Budget:

Budget to include payment for team, fuel, venture hire, accommodation, food for team, shopping lists, for payment for village people's service who would do the catering

Write out a cash advance form & get it signed & collect money

Sort out the money for the different costs

Borrow:

Michelle - ask for calite

Drama dept - box, black cloth, graduation gown for court case

Geography Dept - water container, tape recorder

My things - Water jug, blue cloth for river, rags for the stream, washing powder

Natalie - cooler box

Resources to Collect:

Sand From Beach	Soil Loam/Sand/Red/Black From Community
Fertiliser Bag Label From Community	Young, Dry And Wet Bark From Community
Roots From Community	Leaves From Community
Rocks From Community	Thorn Tree/Normal Tree From Community
Dung From Community	Grass From Community
Reeds From Community	

Make:

Posters

Find and tape music

Shopping for Materials:

soccer ball to thank children for their participation (Approx. Cost R 50)

tape recorder & video camera batteries (Approx. Cost R 10)

Video recorder tapes (Approx. Cost R100)

2 recording tapes (Approx. Cost R 8)

Plastic cups (seed game) (Approx. Cost R 4)

Note books for the team (Approx. Cost R10)

Pens for the team for note taking (Approx. Cost R 4)

Glue Stick (Approx. Cost R 3)

White, blue, brown & other colours of card (Approx. Cost R 12)

12 fat pen colours (Approx. Cost R 20)

Toys animals/tractor (Approx. Cost R 15)

Rent drum from Museum technician (Approx. Cost R 100)

6 films (Approx. Cost R 100)

Processing and developing the film spools (Approx. Cost R 250)

Shopping for Food for 20 participants, 2 cooks, 4
team members: (Approx. Cost R 350)

Juice

Jam

Bread

Biscuits

Margarine

Sugar

Milk powder

Fruit

Polony

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APPENDIX 3 BOX 2

DAY ONE, 1997

CONCEPT CONSERVATION AND ENVIRONMENTAL DESTRUCTION

To share and explore the relevance for environmental management in their lives through viewing the concept of 'conservation' and 'environmental destruction'

Conservation

- Look after the environment. It is everything that we have. We both depend on each other. The environment depends on us. We depend on the environment. If there is no environment there will be no life at all. We as humans are both environment. We depend on each other. Everything that is on earth are God's creature, cow, mountains, rivers, goats and all things.
- By respecting conservation we will be respecting ourselves and concerning nature. We are speaking of living things, animals and me.
- When I think of conservation I think of animals, and the river, and the river and the river is the source for all as we all depend on it, animals and small plants. It is necessary to be clean because it is our life, if it is not clean our health will not be in a good state. The water must be clean because we cannot be alive without water and if we drink dirty water our health will not be good. People will not get a big body, will always thin and be sick because of that dirty water.
- The river depends on us and if we want the water to be clean it also depends us (because we need the water for survival we must be in charge of it and take responsibility). We if take care of the water we will never get sick because our life depends on it and we cannot survive without water.
- People should take care of the water as people cannot live without water. People should just take care of the environment.
- People should take care of the river because a person cuts a trees along the river the shade will be out and the fountain will be out and it will get smaller and smaller as there will be no shade now.
- Should keep our water clean and if you see dirty things in the water you should take it out of the water.
- Should keep the environment clean and should take papers and plastics and burn it to keep the environment clean.
- Water is very good for our animals and plants and ourselves we drink the water. If, it is dirty we have to go to the doctor and it expensive so therefore it is better to keep the water clean. Must take the plastics in the river out

- Environment is our life. We should take care of the river as the smaller plants depend on the river. The trees help us during windy days and thunder storms. If we cut trees along the river the river will become smaller and smaller because of the sun. And, we cannot do without the trees as it is beautiful. People should take care of the environment and should teach their children. How are we going to protect the environment we should plant trees and grass and not cut or burn them as that will cause sand to go straight to the river.
- We can all say one thing that in conservation everything created by God, birds, goats and cattle, horse, donkeys and chickens are all the images of God and also we as humans. Should care.
- Environment is very good for us we should keep it clean and take dirty things from the river and if one sees anything one should take it out
- Must keep our water clean as we depend on it even animals depend on it. Trees is also a part of the environment we should not destroy them. It is also protecting us and God asked us to care for it.
- Thinking of myself, because environment have been created by God, mountains and rivers are also conservation. I pray for attention to river cause we all depend on the river for drinking so we must take care river and even environment too.
- When speaking of conservation I am speaking of myself because we all depend to the river especially the river should be in a healthy state.
- By conservation I think of one of my organs because by treating the conservation cruelly I am harming them.
- By respecting conservation we will be respecting ourselves to concerned to conservation we are speaking of leaving things animals and me. We all depend to each other and even rivers too, we benefit to each other and even the species that live in our rivers

Environmental Destruction

- Environment is a very pure thing because it is a home of some animals. If you cut one tree you are destroying a house of one bird as there might be a nest of that bird in the tree. When you cut those trees, you could be killing a bird. It is similar to a murderer and you must also know that there are other animals that eat that tree. It is the food of other animals. The river is the home of other animals. If the water in the river dries the animals such as fish and frogs will die.
- I think of trees, plastic bags which are along the river and even animals that graze along the river.
- I am concerned worldwide so old ones should teach the young ones how to take care of the river because when you are chopping down the trees along the river you are increasing soil erosion and those people who use to get sand along the river for plastering so the whole world can care of the river.

- By killing snakes you will be increasing frogs and having over population we won't have place to build our houses.
- When we are chopping down trees and veld fires we are increasing soil erosion. So it is better to take care of the environment.
- By having veld fires we will end up having droughts. So our cattle dies and by dying our cattle. It is hard for us to survive.
- Without trees on windy days our houses can be blown away.
- When you are chopping down those trees along the river you are increasing soil erosion and those people who use to get sand along the river for plastering. So the world can take care of the river.
- If we destroy the environment we are destroying our life because we are building our houses with parts of the environment like trees.
- We should take care of the environment because if we destroy the environment we will not live as long as we might have, if we were to live to 60 years we will live to 40 years.
- If we cutting grass and trees we are destroying the environment and that will be a cause of a drought.
- The environment is very important and should stay clean and if you see anything dirty you should take it out so it will keep clean.
- When I am speaking of environment I am speaking of myself because we depend on each other. To survive we benefit to each other so it is fine to take care for it. By having veld fires we will end up having droughts so our cattle dies and by dying of our cattle it is hard for us to survive. By chopping trees we are increasing soil erosion. So it will be hard for us to survive. So we should take care of our environment. We benefit to each other.

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APPENDIX 3 BOX 3	DAY ONE, 1997
PURPOSE-DESIGNED STORY WRITTEN BY BURT (1997)	
The story provided the context for building a non-threatening context for the workshop.	

INGOMA AND THE RIVER

In between the Kandodo mountains there was fertile valley which was filled with trees and many kinds of animals, big and small. Even the small beetles were prosperous and everyone lived in harmony.

Through the valley ran the great river Inxuba. every tress, animal, plant and insect loved and respected the great river Inxuba, for without it they would not be able to live, Each day, at sunrise, all the living things gave thanks to the river for what it gave them. They sang a song as ancient as the mountains itself to the tune of the rushing water.

On day strangers arrived in the valley, two great chiefs named Skabana and Mavovo. The sound of the rushing river drew them to the valley for they needed water. They came from a land far away where water had become scarce land their people were dying for lack of this life giving liquid. As things became worse in this far land, the two chiefs decided to set out and look for new after so that they many once again become a strong community with healthy, happy children and not children who were always sick.

Once the chief discovered the great river Inxuba they sent for their tribes and settled in the beautiful fertile valley. As soon as all the community had arrived the chiefs called a very important meeting. They told their people that the reason things had gone wrong with the river in their old home was because they had ceased singing the great song of gratitude to the river and had lost respect for the river by dirtying it, chopping down its trees. They also tried to horde the water by building dams and other contraptions to try and keep the water as their own. The chiefs told their people that this time they would respect the river's right to flow where it wished because if they respected the river they could be sure that it would provide for them what they needed.

For a few years the two tribes lived in harmony with the river and all the other creatures in the valley. They only took what they needed from the land and the river. Just enough to have food to feed

everyone's bellies and keep the children healthy and full of fun. everyday at sunrise they sang a song of gratitude to the river, a song as ancient as the mountains themselves, to the tune of the rushing water.

After many years things began to change. Some people realised that if they used more land and more water they would be able to grow more food and have more cattle. The chiefs of the time tried to stop these people but what can anyone do against the power of greed. Instead of listening to their elders these people decided to move away and establish their own community further up the river and continue living as they pleased. The up-streamers, for that was what they were called, soon became very wealthy and had lots of cattle and food. The down-streamers saw their wealth and became jealous. Slowly people began to forget the great song and once again to use the river as they wished.

In the down-stream village there lived a little boy named Ingoma. He was the grandson of the older chief of the village although no one really listened to him any more. Ingoma's grandfather used to tell him stories of the old days: of the great search for new water, of the wonderful beauty of the valley when they first arrived and of the great and powerful songs the people used to sing. These songs he used to teach to Ingoma saying in a slow, sad voice, "I am the only one that sings these songs now, sing them with me, my child, and remember them well so that one day you may be able to sing them to your children too".

Ingoma loved the sound of the songs but his favourite was the song about the river and he loved to sing it while he played by the river.

One day while he was down by the river, playing amongst the grass his heart suddenly became filled with the wonder of their river and he began to sing the great song of gratitude. As he was singing he heard another voice also singing with him. He stopped singing and called out, "Granddad is that you?"

No one answered but the singing continued. Ingoma looked around trying to discover who was singing the song he loved so well. At last his eyes fell on a small green frog sitting comfortably on a stone on the edge of the river. Ingoma was quite shocked for he did not know that frogs could sing so well. The frog noticed him looking at him, stopped singing and said, "Hmm a little boy. I didn't know that humans still knew the old songs of gratitude and love, what a wonderful surprise!".

"Well, I did not know that animals could talk". Said Ingoma.

‘Of course they talk’, said the green frog.

“It is you who does not listen, thinking you are the only ones who are important. Who do you think taught your kind of great songs?”

Ingoma did not know what to answer for this question as he had never thought about it and thought the song had just arrived. “The animals of course”, said the frog, in disgust at the boy’s ignorance.

“But, what good it did, I don’t know, as most of you just forget them, forget that without the river and the rest of living things humans will die. What a hopeless race!”

“We are not hopeless”, said the boy. “We are big and strong”.

“Not without us you are not,” said the frog. “What would you do if all the vegetables went on strike and decided not to grow or all the animals decided to leave the valley or the river decided not to flow. How strong would you be then I wonder?”

Ingoma was quite startled by all the frog told him and could do nothing but stare at the creature. The frog looked back at him with a twinkle in his eye.

“Would you like to hear the story of how the great song of gratitude to the river began?” said the frog.

“Yes”, said the boy.

“Sit down” said the frog, “ I will tell you but first what is your name?”

“Ingoma”, said the boy.

“Ahh” said the boy.

This was the beginning of many conversations between the boy and the frog. Ingoma learnt all there was to know about nature and the natural rules of the world which all animals followed. All except humans. Sometimes Ingoma used to bring his cousin Utemba who was his best friend with him and together they would listen to the stories of the frog and sing such songs as have not been heard on human lips for many a year.

On day Ingoma headed for the river in a sad mood. His cousin was away at this Uncle's house and there was no one to play with. The other boys did not want to play with him for they thought that he was strange, talking to trees, and the songs that he sang scared them. Ingoma was lonely so he decided to go and visit his friend the frog and listen, once again to the wonderful stories that the green frog told him. But when Ingoma got to the river the frog was not sitting on his comfortable stone, nor could Ingoma find him anywhere. He looked and looked and called and called, but it was useless. Just as he was about to turn away from the river and head for home he heard a slow, sad voice singing a song that was so filled with sorrow that he felt himself crying even though he did not understand the words. He followed the sound of the voice and came across the frog under a big stone surrounded by his family. The frog looked different somehow and the usual twinkle in his bright yellow eyes was gone.

"What is wrong?", cried the boy.

"I am dying," said the frog, "I am old and I can't fight this poison any more."

"What have they done to you?", cried the boy, "Tell me and I will make them stop".

"Can you stop the dirtying of the river, can you stop the trees being cut down, can you stop the upstream people poisoning the river and trying to claim the water as all theirs by building these contraptions which keep the river in one place and stop the natural flow of the river. If you can do all this it would still be too late for me but for you children, for all living things ..? You are only a boy but a boy is something. Remember the songs boy, do not forget them for in them lie hope."

"Ingoma was crying openly now. We are a wicked race," he cried, "but I will take you up river to clean water where you can get better."

"What?", said the frog. "Leave my family and my home. A human may kill my body but they will not take my spirit and my home. I will not leave the place of my ancestors, I will die here as they have done and as my children will after me. And child do not call your people wicked, they are ignorant, they have forgotten the great songs, but remember what I told you long time ago. Human people cannot live without the world. The animals suffer now but the humans shall suffer too, this cannot be avoided. They will drink their own poison and know what they have done."

Ingoma listened and realised that he not only understood what they were singing but that he knew the words. He began to sing. At the sound of the boy's sweet, young voice the frog once again opened his eyes.

“Do not forget the songs boy for in them lies hope”, with that he closed his eyes and passed into the world of the ancestors.

With the family’s permission Ingoma gave his friend the frog for a human burial and planed a tree above his grave so that he would always remember his wise friend and the things he had taught him. Everyday Ingoma used to visit the spot of his friends grave and many times he used to take his cousin grown up stream with him and they used to sing and ancient songs to the sound of the flowing river.

But as Ingoma grew older he went less and less to the frog’s grave as he has more duties to do at the home. But he never forgot what his friend told him and everyday at sunrise while everyone was asleep he would sing the song of gratitude to the river, a song as ancient as the mountains. One day he returned to the place of the frog’s grave and even though he was almost a man, he cried at what he saw. The tree under which the frog was buried was chopped down as well as many other trees. The rive had almost stopped flowing and there were no birds singing in the trees. Even the grass had been taken fro the banks of the river, Everything looked desolate. At this sight the boy began to sing the sorrowful song he had sung so long ago while the fog was dying for now the river was dying and everything was dying with it.

At his song a frog appeared and looked at him. “You must be Ingoma”, he said. “ I am the son of the one you loved many years ago. You have been faithful to my father and all that he has taught you. This will protect you from what is to come”. With that the frog disappeared. Ingoma was puzzled by what the frog had told him and he thought of it for many days. But soon he began to realised what the frog meant. Livestock began to die, the crops would not grow and people began to get sick. There was not enough water the crops would not grow and people began to get sick. There was not enough water and what water there was, was bad tasting and sick to the stomach. Soon people began to die and Ingoma found that he sang the song of sorrow many times that season.

One day as Ingoma was walking towards his mother’s house he began to feel very ill. When he got home he went straight to bed and remained there for many days. His mother went around the house weeping and his grandfather sat most of the day by his bed holding his hot hand. Ingoma got worse and worse and his family began to prepare themselves for his death. But one night Ingoma has a dream. He dreamt of his old friend the frog and of this son and they were singing the song of gratitude to the river. He tasted fresh, pure water on his lips and felt the clean water washing the disease from his body. Then the frog began to speak, “The humans have suffered, they have seen what they have done. Your family

up stream are sorrowful for their neglect of the river and many people have lost their loved ones because of their neglect. It is time for your people to come together and learn, once again the ancient song of gratitude to the river and you must teach them but not in the language of the wind and the water in your language. Tell them about the rules of nature in the language of men. Teach them to respect one another and understand that what one puts in the water another must drink. For if they respect one another they will learn to respect nature and we will once again live in harmony.”

When Ingoma woke up he was better. He got out of bed much to the surprise of this mother, put on his clothes and went down to the river. There waiting for him was the frog’s son and together they discussed what he would say to the people. They talked long and hard and right through the night. As the sun began to show they stopped talking and turned their face towards the sun’s rays and began to sing the ancient song of gratitude, a song as old as the mountains themselves, to the tune of the rushing river.

Ingoma has a hard tasks convincing the people of all the things they had done to the river but he managed it at last with the help of Utemba from upstream for he also remembered the frog and all the lessons. But if you fo to the valley today you will be surprised at its beauty and fruitfulness and you will meet Ingoma who is now great chief and very old. You will be lucky if you can find him at home for he spends most of his time at the river but you will hear him, hear him singing songs of gratitude, love and joy to the tune of the rushing river.

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APPENDIX 3 BOX 4	DAY ONE, 1997
PARTICIPANTS PERCEPTIONS OF THE NATURAL RESOURCES	
To examine which elements of the riparian zone are important to the community.	
The knowledge about the uses different compositions of stones and examination of the resource.	

Stones

- Stones found at the river, it is used grind mealies to make samp. It is called a grinding stone, "ility lokusile".
- Use as toilet paper especially those stones along the river, smooth.
- Using the stone to step over when we are at the river

- When you get the big ones we use for making the maize fine in the old days.
- Clay stoned, used by Abakhwtha and Sanuse even by the Ixhwele even a child when is still young. It is found in the veldt, have to dig half of a metre.
- In the old days we used to get the big ones rocks for grinding to make the maize fine. Now day's people use shops for maize. I can say few use rock now for grinding.

Clay

- It is good for building houses and not for planting as it absorbs water too much
- Clay stone used by many people. The Abakhwetha [young males going through circumcision rites], Sanuse [Divine Healers], the Ixhwele [Herbalist or Medicine man] and even used on a child when is still young. This clay stone is found in the veldt. We have to dig half of a metre
- It is not good for crops.
- Bakwetha use at the time of circumcision on their bodies.
- White clay is used when in the bush, coming of male hood. That person is not wearing clothes so it protects them from the sun.
- Women use it to stop pimples.
- A newly born baby, an `umdlezene' apply the white clay colour on the face . It shows that women is a mother of the child. She must do this for four weeks, before the father comes to that women's room.
- Sanuses use it too.
- Clay found in the veld at metre deep or at the river.

Gravel

- Tarred roads need gravel.
- For roads.

Slate

- The old days for writing

Sandy Soils

- For building
- It is very poor for cultivation

Clay Soils

Income Earner

- No

Extent of Use

- Only if you building otherwise not much.

Getting Less

- No

Who Taught You?

- We learn of black soils by the agricultural officers.
- Some of the differences of soils we learn about at school.

Stated Problems

- People help themselves along the river, go to toilet there.
- Stones are not good for crops.

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APPENDIX 3 BOX 5	DAY ONE, 1997
PARTICIPANTS PERCEPTIONS OF THE NATURAL RESOURCES	
To examine which elements of the riparian zone are important to the community. - The knowledge about the uses of trees in their local environment and examination of the resource.	

Thorn Tree

- It is a thorn tree and using it a lot as it is very good for fire.
- I know that the thorn tree is good for fire and in fact the thorn tree is my heater in my house.
- Thorn tree is good for coal.
- For firewood.
- When you are collecting firewood you take the your knife and take the bark off the thorn tree. The bark is used make ropes to tie around the pile of wood. It helps people carry the wood nicely.

- Take the green thorn tree bark for a bandage for a goat who have broken its leg.
- When your cattle breaks the leg we use that bark to bandage and cover it.
- And, we take the bark off the tree and make something like a bandage for our goats and cattle.
- Traditional medicine for the cows.
- Leaves good for grazing goats.
- It is good for fencing.
- We take the wood to make the Xhosa kraals for the sheep and goats at night. We take the thorn tree because the thorns gives food to the sheep and goats. We as Xhosa people in our culture our kraals are made by this tree and our ancestors don't allow any tree without thorn tree for kraal. All of us Xhosa have a tree in the middle of the kraal. The tree in the middle of the kraal can be any tree. It can even be a pole.
- As dead wood, the thorn tree has no use. It is useless.
- Medicine for sick people. The knowledge only known by the Sanuses.
- That is a thorn tree branch it is good for stomach ache. You take off the bark and boil it and drink when it is cool.

Umnga (it is the thorn tree)

- Firewood.
- Building kraals because the blacks commonly use this tree not other trees.
- Goats graze this tree.
- When a cow broke it's leg people use to bandage it with this tree.

Umbhonbisa

- Use the cover (bark) of it for making ropes.
- Good for making poles, axes and hoes.
- We use for building the Xhosa kraal.

Umbongisa

- It is useless and don't even get them near our homes. It have thorns so it is good for nothing.
- Useless for everything. Have no place in traditional customs.
- Umbongisa tree has is no cultural need for this tree, it is just fire wood.
- The tree has no cultural use. It does not burn strong and makes ash.

Acacia

- It is for making planks, and fencing poles. Used because strong.

Umthathi

- Good for starting the fire especially for blacks because of traditional customs.
- Better than paraffin to start fire.
- In Xhosa culture must use Umthathi to start the fire.
- When there is a thunderstorm you just put it near the door.

Umthole

- Used for making Xhosa smoking pipes for tobacco.
- This tree is used for making pipes for Xhosa. My grandfather taught me.
- Drums and stamps for crushing maize.

Umnquma (*Olea africana*)

- Used for making sticks for walking.
- Fence for the kraal.
- Poles for fencing.
- leaves good for the goats.

Income Earner

- Yes - We can sell wood then buy cabbage seeds, buy food, and education for children.
- I am a woodcutter, the less trees is a concern to my income. I am cutting everywhere.
- Before, make money from cutting poles. You request from someone who is selling them to cut for you. There is not one making poles now.
- Sell wood for fire. If we want to then we must pay for the car hirer.
- Umthole, smoking pipes sell.

Extent of Use

- Public Demand.
- We use more wood in winter. It makes our house warm.
- Before we make smoking pipes from Umthole tree. Now, Mandela said people must stop smoking therefore it is getting less. We learn from outside.

Getting Less

- Fire wood is getting finished.
- All wood is getting less.
- Trees are getting less. No one is planting.

Way of Dealing with Situation

- Buying firewood.
- Stop chopping the young trees better use the old ones.
- Can be much better to chop far at the veld not next to the houses.
- We all depend to the environment for everything that we are doing we must respect the environment and even the environment will respect us too.

Stated Problems

- Fire wood is getting finished, people have to deep into the forest to get firewood.
- Buying firewood is expensive.
- When we are cutting down the trees, in the stream of the tree there is a food for baboons. So when we are cutting down the trees with roots the baboons cannot have food because of humans.
- Getting less in what they live in. We are unhappy because by buying wood we are decreasing our environment. We learnt a lot from today. For instance, thorn tree is acting as heater if it was not there at all it will be hard for them to have warmth. I am glad as today there is wood sellers here to hear about the need to care for the environment. It is fine for the wood seller to cut the dry ones. We have soil erosion because of those thorn tree are chopped down.
- By chopping trees you are increasing soil. By chopping thorn trees you are taking baboons food. Baboons like that sticky food from that tree. Making thorn tree less baboons now troubling us in the field.

A Dialogue Concerning Trees

- We are worried because the torn trees are getting less so we have to go deep into the forest to take our goats to graze. There are people are stealing their goats. Now we are crying because our goats are getting stolen by thieves.
- I have no choice because as we need to cook and to make fire to make the house warm and therefore have to use the thorn trees. This demand makes the thorn trees less for the goats.

- Since we are worried about the thorn trees getting finished what are we going to do?
- Are you going to act on the problem by planting trees or continue cutting them out without future considerations? (Team member)
- We will try and do something.
- We can plant trees but the problem is now those trees we plant will only be ready in 5 years time.
- People must stop cutting down the green trees and take the dry ones.
- People should cut the big ones and not the small ones that are growing so as to give them a chance to grow.
- The problem is that the dry thorn trees is difficult to cut the dry ones. That is why people are using the green trees and not the dry trees.
- The problem is that people are lazy to go deep in the forest, so when they see green trees they cut them.
- There is a lot of firewood deep down in the forest but people are lazy to go down there. People should cut the big trees and stop cutting the small ones.
- People are not lazy but it is dangerous in forest.
- “Umnquma” tree. People respecting that tree because for the ritual. When we slaughter the cow it is right to serve the meat on the leaves and the branches. It is good to make good fighting sticks. People are not respecting it now.
- I understand that there are dangerous people there that is why the wood is getting finished near the homes.

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APPENDIX 3 BOX 6	DAY ONE, 1997
PARTICIPANTS PERCEPTIONS OF THE NATURAL RESOURCES	
To examine which elements of the riparian zone are important to the community.	
- The knowledge about the uses of fertilisers in their local environment and examination of the resource.	

Kraal Manure

- Good for planting.
- When you are ploughing you mix your soil with it. It makes your soil fertile.

- You can also use compost into the soil.
- Our fields do not need the fertiliser from the shop but dung can make our field fertile. That black soil does not need fertiliser. It is good without fertiliser.
- If you need fertiliser that soil will need the fertiliser again, but if you use dung there will be no problem.

LAN 28

- It is fertile but manure is much better. Manure is more fertile.
- Fertiliser destroys grass and flowers.
- Fertiliser makes plants grow faster.
- Artificial fertiliser.
- It is can LAN 28, it is salty fertiliser so you must use a little bit of it when you plant as it is dangerous when you use more. It has it's own measurement. You must sure that it is melted (diluted).

Income Earner

- Yes - Kraal manure, makes the soil fertile, we gets lots of money from more crops.
- Fertiliser, lots of crops you get money. We sell more goods or crops. With more money from using the fertiliser we can have money for children school and food.

Extent of Use

- Yes- Fertiliser we use in HACOP fields.
- Manure we use in home gardens.

Getting Less

- No

Stated Problems

- Fertiliser is expensive. We buy from East-London.
- Fields next to the river. The fertilisers go in river. People drink from that and get sick.
- We buy from a dealer. Dealer don't tell us what is inside it. It is not good to know what it is made from. The fertiliser can damage the environment. It is bad. It is hard as the man selling is not helpful. That man is difficult man, we should know.

PARTICIPANTS PERCEPTIONS OF THE NATURAL RESOURCES

To examine which elements of the riparian zone are important to the community.

- The knowledge about the uses of grasses in their local environment and examination of the resource.

Grass

- Grass is good for cows to eat, can get more milk.
- Grass along the river is tough. For this reason it is hard for cows to graze.
- Make traditional mats.
- Make a cover for covering African beer.
- Make hats.
- Making basket to carry our things.
- Grass good for the environment. Birds make nest with it. Some put the nests in reeds near the river.
- Prevents soil erosion.

Seeds

- Makes thing grow. You plant it.
- It is difficult to teach young to plant.
- When people plant the seed gets trampled by cows. Cattle is a problem. It is not good. Let me make example, planting is good to make the shade of the trees.
- That is a seed from a thorn tree. Children like to eat it when they under the tree.
- Make castor oil from the seeds of the thorn tree.

Leaves

- Green and dry leaves different. If leaf is green can use it. If dry use it for fire, return to earth.
- “Mhlonyane” is for the headache and fever. It is shrub. We use most of the shrub for medicine except the roots.
- This is a leaf called “uMhlonyane”, when you got headache you must put on the forehead, like a napkin. It takes away the hot temperature that you have with a headache.

- “Umgonzoal” when you have a headache bandage your head with it.
- Those are dry leaves and they are good for compost.

Weeds (“Bossies”)

- Used by sheep, goats and horses for grazing.
- Bossies is useless.
- It must not be planted next to plants we eat. It will over take and kill the plants we use.
- Weeds get in the fields and along the river.

Income Earner

- Yes, the Sanuse (Divine Healers) makes little bit of money from these things (leaves).
- Reeds and hats and baskets, is number one for money, unreliable but can be good were no one has the grass. I can sell it to people in the townships.
- Grass is good for cows to eat. The grass helps the cows get more milk.

Extent of Use

- Yes, cows eat the grass.
- Getting fewer skills for making mats.
- The grass used for thatching no longer using it as much as less people know how to do it. The people are not using it much, it is been damaged natural things like sun and drought.

Getting Less

- No, reeds along river getting more.

Who Taught You?

- Father taught knowledge about these things.
- Some things taught by mother makes medicine of herbs.
- Parents don’t tell them learn by doing.

Stated Problems

- Seed gets trampled by cows.

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APPENDIX 3 BOX 8	DAY ONE, 1997
PARTICIPANTS PERCEPTIONS OF THE NATURAL RESOURCES	
Other issues raised	

- We cannot survive without water.
- Frogs die but mostly see the frogs dead in water. The water turns green, makes stomach sick also see it in.

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APPENDIX 3 BOX 9	DAY ONE, 1997
TO BRING ATTENTION TO THE NEED FOR MUTUAL INTERDEPENDENCE AND COOPERATION BETWEEN VILLAGERS AND THE ENVIRONMENTAL RESOURCES	
To encourage people to reflect on their cultural conservation practices using a performance theatre	

Nicky: The children are going to help us learn, we are learning from each other. I am going ask: What does the environment, we have discussed what we need. Why must we care for the environment? The environment has a lot of needs.

Molly-Anne: (dressed in a Sanuse outfit walks up to the river)

Here are the things of my environment. Things happening long ago was very important. Before, when I fetched the water I asked the ancestors if I can take the resources. I celebrated to the ancestors that we have ten children in our family. Here I am fetching water with my children at the river. As I fetch the water, I take my traditional beads and place them by the river. [Molly-Anne kneeling at the river places the beads she has in her pocket beside the river]. I praise the ancestors in the water and I ask permission to collect water and dry wood for my house.

Tomblie: [*acting as the ancestor in the river*]

I thank you for being respectful to the water and resources. You have being a wise women and

I grant you permission to take water from the river and dry wood from the edges. It is good to remember the Xhosa culture for you and your children will have clean water and good supply of wood. Go collect wise women.

Molly-Anne: [gets up. She calls her children to help collect water and collect dry wood]

Children let us collect water and dry wood for home. We have given respect to our ancestors in the river. Children we are putting these beads to show the respect to our ancestors. They were always allowing a person who was doing this because they see that you were respecting and there was also fields, we were ploughing dung for the fields so that the fields can be good always.

[As the children and Molly-Anne leave the room the 'resources' surrounding the river introduce their character and their condition. These resources are acted out by the school children of Hertzog School]

Children in role play introduce themselves:

- I am a tree long ago people take care of me
- I am a tree long ago people take care of me
- I am a bird people long ago never killed me
- I am a stone people were building houses but were caring about me
- I am grass people were not burning me but taking care of me
- I am frog I live on the edge of the river and there is no problem.

Nicky *[when the scene is finished Nicky takes on a facilitator role]*

Nicky: What has changed in your lives

Participant: We are in a stage where people are not taking care of the water nor the environment.

Participant: People long ago do not wash along the river and now people are doing washing along the river and the soap is going into the river. Now people cook and drink with the water even though it is dirty

Participant: As you have shown us long ago people used to respect the river but now they no longer doing so.

Nicky: What is happening now. What are people doing for the environment?

Participant: Long ago people were not suffering there was enough food and were using their fields,

because people like women not eating fish even eggs but now they can. Because they are not producing enough food from fields that is why they are eating the things along the river like fish. So they decided to eat fish though we are not suppose to. Because of education there were things that they were not suppose to eat but do now, because long ago our parents said no. Because some are educated we can eat fish. We no longer respect our cultural beliefs now. We destroy the environment now because people have no respect.

Participant: People who destroy the environment are now suffering.

Participant: There is disease such as high blood and diabetes because of a bad environment.

Nicky: Do you notice any differences?

Participant: Our environment was beautiful and people use to respect it. People use to respect the river. People use to honour their ancestors in the river. Now days people don't respect the things that they used to respect. Things that were not done along the river before people do now. Firstly in the good old days they use to respect the river and the area surrounding. It is important from the environment and these things are important for both of us. We destroy the environment, for human sake. To protect for the environment they are doing nothing. The trees and fishes are less and water is scarce. People help themselves along the river. Just taking. We are now suffering. People are getting old in their young age. People are having illness, high blood pressure and TB because the river is in a bad state. First we as Xhosa people used to respect the river like not allowing fishing. Simply because people starve of hunger we decided to take fish. There is no honour now for the river. Now can pour back soapy water back in the river again there is no respect at all for the river.

Nicky: What should we learn from this?

Participant: People should try again to go back, and respect their environment and themselves and the governments. Long ago when we were boys and when the police came around they know to run because they know it us wrong. We not suppose to cut the tree of the Umnquma but people cutting down every tree. Today the people are free now and do everything they want to do. If, people should start everything in the environment things will go well again. But, at the time of our grandfathers people were not going to fetch water at night as people were respecting the river. Even early in the morning people should go in the day when the ancestors in the water are awake. People do not respect those things as they say it is an old belief.

Participant: Today the youth toilet next to the river.

Participant: Stop throwing rubbish by the river.

Nicky: Are there any environmental practices that are not observed currently?

Participant: Those who are using fields near the river must not use fertiliser along the river. It will be fine to have the young ones responsible to look after the environment. It will be fine that way.

Participant: People are chopping wood at the river. Most people now collect water with a dirty bucket and wash at the river. The old ways is forgotten.

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APPENDIX 3 BOX 10	DAY ONE, 1997
SCENE ONE - FRAMING THE CONTEXT - THE SCRIPT OF THE FORUM THEATRE INVOLVING A DISRESPECTFUL FARMER WITH THE ASSISTANCE OF CHILDREN.	
To provide a fictional context with which the community could identify, and allowed for participatory experiences, discussions and problem solving.	

Molly Anne: I am tired, my children need food. Come children let us go to the river and see what we can take. All of you are making me tired. I now I am suffering more than in the olden days. My children are stubborn when I call them. Children, children, listen to me. I will drag you, if you don't come. I am not too old for that I have got many children and a wife and she is having a long holiday at home. People do not understand. They do not understand my suffering. I want to toilet again. There is no food in my house. I am earning from the environment. It is getting cold I need to get wood for a fire. I will get some fish now. I will eat these fish. Come here fish. I must do everything myself, I am so hungry now. Children, come.

Now I am at the river, mmmmm. First wash our dirty clothes. Children wash here. It is too much hard work to carry water from the river. See this good stone. I can wash on it and the river water takes the soap down at the same time.

I will go and see what goods I must take, I am suffering, there is no way that I can survive without the environment. Oh, it is difficult on earth. Ah, a fish, I can see that you are alive. Everyone on earth is hungry for you fishes. Children here fish. I have caught

one. But my children are so hungry so I must feed them. I will catch another one. Maybe I can sell one and have some money for sitting with my friends.

Hello frog again, so I can't take you home because I can not feed on you. Here are some trees, I will cut some trees and make firewood to cook for my children and also fire because it is cold at night. I can see also the birds, and I am going to take them also to sell to the farmers because they like pets. So, I will have money then. Come home. Oh, it is difficult on earth. Is there something I left. It is alright when I get back latter, to gather more things as it is still dawn. Come my children it is time for school.

[As the disrepectful farmer leaves, the *children acting as 'resources' surrounding the river introduce their character and their condition. These resources are acted out by the school children of Hertzog School*]

Children in role play introduce themselves:

I am a tree today no body cares about me they are just cutting me.

I am a grass people are burning me.

I am a stone people don't take care of me.

I am a bird people are killing me.

I am a frog people put dirty washing water in river.

I am a bird people eat me.

[*The Children ask the participants for help when the disrespectful farmer returns - a scene that had being predetermined with the children to help adults to participant in Scene Two*]

Child: Please help us.

Child: We are getting hurt.

Nicky: How are we going to stop the disrespectful farmer when she returns?

Child: Say 'stop'.

Nicky: Shall we teach these people here to say it.

Children: Yes.

Nicky: What shall the people say when the person comes in, tell us so we can practice.

Children: Stop.

Nicky: What?

Children: Stop [louder]
Nicky: Does everyone know what say?
Participant: Stop.

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APPENDIX 3 BOX 11	DAY ONE, 1997
SCENE TWO – SPECT-ACTORS SHAPE THE DRAMA	
To spect-actors identify environmental concerns, voice their opinions and seek to solve the issues.	

Molly Anne (the actress):

Everything I am doing make me sick as I am old now, there is no other help. The pale of the water is dirty [looking at the river]. The weather is OK today. It is a nice day, the children must do washing. Now I am old and things are not the same as before I must feed my children and get food for supper. There is no time to respect the environment. I need the toilet [in role defecating into the river].

Participant: Stop, stop.

Molly Anne: Chopping trees.

Spect-actor : People should be a watch dog in each area, to tell people which tree to cut off and to find out which tree to be planted when they cut the green trees.

Spect-actor : People who are cutting trees should cut the dry and not the green. When the green have grown up can take those ones. People should come together in the community were each people should have the responsibility to look after the environment.

Molly-Anne: No, why should I listen to you. Ah, I need the toilet again.

Spect-actor: Stop, stop.

Molly-Anne: I have no other place to go to the toilet.

Spect-actor : Each house should have a toilet.

Molly-Anne: Moves towards the trees and continues to chop them.

Spect-actor: Stop, we told you.

Spect-actors: Stop.

Molly-Anne: Why, shall I stop, what must I do (washing at the river).

Spect-actors: Take the water and wash far away.

Molly Anne: No, I am old now.

Spect-actors No, must go wash it far away.

Molly Anne: No, I can't because I live by eating fish and cutting trees (cutting trees and fishing).

Spect-actors: The plants and fish also want to live they have life.

Spect-actors: If she takes something from that river they will take her to court or be taken by the policemen.

Molly Anne: It will be OK because I will be arrested for what I have done (still cutting trees and fishing).

Spect-actors By taking fish there she will be caring for the environment.

Molly Anne: No, I will not be arrested for doing that thing, I want food so you better give it to me if you want me to stop fishing.

Spect-actors: Stop.

Molly Anne: I need wood and I cannot go far deep into the forest (still cutting trees and fishing).

Spect-actors Stop.

Molly Anne: Takes as they not very enforcing.

Spect-actors: Take only the dry trees.

Molly Anne: People are not telling me the dry things they just stopping me, so please tell me the right thing when you are stopping me.

Spect-actor: Take the bucket and wash away from the river as they will be dirtying the river.

Spect-actor: Go home and ask your grand son how to treat the environment and understand the bad things you are doing, people are getting sick as they are drinking that dirty water and doing washing along the river as well, did you ever see the soil going into the river well that is from the tree that you chopped down, and that grasses you burn are also part of erosion, most of your cows at your home is because of that grass that you burn.

Molly-Anne: What did you tell me?

Spect-actor: People should stop cutting trees along the river, if one sees one doing it they should be stopped.

Spect-actor: Everybody should look after these problems not one person. If a person does not want to build a toilet they must be called to a meeting and told to do so. If, people are united they could come together to help each other to build the toilets.

.Spect-actor: Long ago people seen doing wrong were caught by the law but that no longer exists. So people must care on their own.

Spect-actor: People who live a long the river should come together and discuss how to solve it because people are no longer going to the forest to get wood but just going to the river. It can be the right thing if people take the advice of not cutting down the green trees.

- Spect-actor: People if could respect the environment by building rubbish dumps and toilets the area can be clean and beautiful.
- Spect-actor: People like old people can ask their grandson to help them.
- Spect-actor: Xhosa people who are fishing should be stopped and those washing along the river must be stopped and the children must be taught this at school and must stop swimming in the river.
- Spect-actor: People should also teach their children at home to keep care of it and explain why. People should start building toilets.
- Spect-actor: In the townships there is environment day, so people should start to observe because township people do not have a river nor trees so why are they doing environmental day and not us with a river and trees. Trees should be planted in the villages, that will be good for us.

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APPENDIX 3 BOX 12	DAY ONE, 1997
PARTICIPANTS REFLECT ON SCENE TWO OF THE FORUM THEATRE	
Participants encouraged to relate the forum theatre to their own situation.	

- Nicky: What other solutions or behaviour changes could result in a better environment?
- Spect-actor: People need to stop the old woman to chop near the river. The women must not collect water with a dirty bucket.
- Nicky: What aspects of this drama reflects your life here and what can you do about it?
- Participant: Not to fish.
- Participant: Try and ask your children who are at school to try and teach you about health.
- Participant: Stop burning the grass along the river.
- Nicky: Are there any other ways to ensure that the environment is cared for?
- Participant: Each an every person should be a soldier to look after the environment. People must stop chopping green trees, if they chop they must in a later stage plant new ones. People must build toilets for themselves.
- Participant: Must take care for the environment.
- Participant: It will be better if it can be taught in schools for the children to learn about the environment.
- Participant: People must not fish and they must do their washing at home.

Participant: Should pick up plastic bags because even cattle use to eat them and they die.

Participant: In location areas there are what we call environmental day so it will be fine to take here at rural areas.

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APPENDIX 3 BOX 13	DAY ONE, 1997
THE TRANSECT WORKSHEET	
Record your 1) location, 2) observation and, 3) judge your observation, if it is 'good' or 'bad' for the river and the surrounding area.	

1. Indawo	2. Okubonayo	3. Okuthethayo Ngale Nto
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.....
.....
.....

* * * * *

APPENDIX 3 BOX 14	DAY TWO, 1997
UP-STREAM ACTIVITIES	
A 12-hour day which involved activities such as collecting firewood, farming, irrigating and washing clothes to be carried using the model	

Wake up, the sun is shining it is a beautiful day, and you have forgotten to collect water the day before, so you get a container and go and fetch some water.

- Make food, and pile the dishes up to go and wash them.
- Afterwards you decide to go and irrigate your fields, for the morning session.
- Then you go and collect some firewood to make a fire for cooking samp. Some of you hire the trunk to go to fetch fire wood and also for collecting water.
- Once you have put on the samp you go down to the river to wash your clothes.
- When you are the water place you notice someone herding the cattle, goats, sheep etc for drinking as the day is getting hot. At this point some of the cattle go to the toilet near the river (full up water pistols with brown dye).

- The field need to be ploughed, so you climb into your tractor and go ploughing.
- Now, it is lunch time you eat and dirty all the dishes which need to be washed so you go down to the river to wash them.
- After washing the dishes you go and fertilise the fields (red in water pistols) fill up your tanks.
- Whilst there you collect building materials to take home from the river (rocks) and trees. You realise you cannot carry all the materials and ask the lorry to come and get the materials.
- You get home to realise you need more water for the household and as the tractor and truck is in the village you ask for it to fetch you lots of water and some more firewood.
- In the evening you go and irrigate the fields from the hot day as you plan to plant things later in the day.
- You at the end of the day start to plant a few crops.
- Some go and bathe at the river.

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APPENDIX 3 BOX 15	DAY TWO, 1997
DIALOGUE OF DRAMA BETWEEN DOWN AND UP STREAM VILLAGE AND DAM OPERATOR	
To demonstrate a 'real life' cause-effect relationship occurring between an upstream village (Hertzog) and a downstream village (Fairbairn)	

Down-Streamers :

Down-stream Participant:

Why is this water very dirty? How can we drink such water? I am going to go to my neighbour to find if they see the water this morning.

(Women goes to her neighbour, knock knock)

Down-stream Participant:

The water is dirty it has plastic and paper.

Down-stream Participant

We must go to the chief and explain the problem.

Down-stream Neighbour

We must go to the chief now and not tomorrow! The water is dirty and our children can not live with it.

(A group of down-streamers go to the chief)

Chief:

What is the problem?

(The down-stream group show him the water)

Down-stream Group:

What can be done to solve this problem?

Chief:

We must go to the Chief of that upper village.

(Down-streamer Meet Up-streamers):

Down-stream Chief:

I need to meet the chief of the top village and tell the problem that the people of this chief's village are dirtying the water.

Down-stream Chief:

The people washing the dishes inside the river, washing clothes, using it for toilet.

Up-stream Chief:

My water is very clean and we face no problems. The people as group here show no concern as their water is fine. You must not complain.

Down-stream Participant:

I am worried for the children of my village. Getting sick from this water. The people of your upper village are putting paper and plastic in the river and dead cows.

Down-stream Participant:

They also wash themselves in the river and throw their washing cloth into the river when it is old and dirty.

Down-stream Chief:

If the chief is not going to solve this problem it is better to go to court.

Up-stream people:

We did not make the water dirty. Our water is clean so how can we be the ones that dirty the river.

Up-stream participant:

That river is also ours. Your river is down there. You must control that one not this one.

Up-stream Chief:

I will try and speak to my people about the problem.

(Up-stream Chief talks to his people)

Up-stream Chief:

You people are doing washing, toilet, swimming, paper into river, fertilising from your fields. All you let go into the river.

(The meeting continues between the two villages)

Down-stream group:

If the Chief of this upper village is not going to solve this problem then we are going to the next village up from this one.

Up-stream group:

You must talk to the person who is in charge of the dam and maybe the water will come clean again.

Up-stream group:

We are not concerned about the bottom village and you must go now.

(The dam operator arrives to hear the problems between the two villages)

Dam operator talks with up-stream Chief:

What are they complaining about.

Up-stream Chief:

They are upset about the dirty water.

Dam operator talks with up-stream Chief:

But why you are a Chief and why are you not keeping the water clean? What are the reasons why you have not told your people to wash away from the river.

Up-stream Chief:

People do not listen. They continue to put plastic in the water then they say the water is very dirty. The water also has soap in it and dung.

Dam operator talks with up-stream Chief:

Do people here have toilets or do they use the river place.

Up-stream Chief:

People do have toilets.

Dam operator talks with up-stream Chief:

What is the other chief saying about this problem?

(It was decided jointly that they would call a traditional Xhosa meeting - 'imbizo' and if they were unable to solve the problem the matter would be taken to court)

(The meeting continues between the two villages)

Down-stream Chief:

The problem is that you cannot control your own people of your village.

Up-stream groups talk to their Chief:

Tell the below village people to leave so we can talk about this matter.

Up-stream Chief:

Please, I ask you to change your ways and not to do washing in the river.

Down-stream group:

We have decided to take it to court.

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APPENDIX 3 BOX 16	DAY TWO, 1997
DIALOGUE OF A COURT CASE SCENE	
A mock court case to resolve disputes in their use of riverine resources.	

Witness:

They are using the bad fertiliser along the fields. After using that bad fertiliser it all goes straight to the river and even the fish are eating that fertiliser.

Judge:

Are these wrong things destroying the environment and the health of the people. Is that true or not.

Accused 1:

I do not farm, but we are washing at the river. I saw the dirty water running down. Other people are drinking that. Before I didn't know that was wrong as no one has taught me before.

Judge:

When you swimming and washing in the river does it require the education of school as one can just see it. When you sweep the house does this require school education or is it from the learning of the house.

Accused 1:

No, I learn it from my mother. My mother taught me properly were to throw the rubbish. I am guilty.

Court Convenor:

Next accused. Silence in the court.

Judge:

Are you guilty?

Accused 2:

Yes I am guilty. I am prepared to go to the bottom streamers to confess and say sorry.

Judge:

When the down stream people told you that you was doing something wrong did you try to change your ways?

Accused 2:

The Chief did say but we did not listen.

Judge:

Why did they not listen to the Chief.

Accused 2:

I did not think that the Chief from the bottom village was correct. I thought that those people down there were making the water dirty themselves. I am very sorry for that.

Judge:

By doing those thing you are killing small animals and the environmental and that he should spend 15 years in jail.

Accused 2:

I agree and I am sorry for that.

Judge:

By taking them to jail for 15 years is not going to solve the problem. The people of the top and down village must come together and find ways of solving their problems so that it cannot happen again because this problem cannot be solved by court but it has to be solved by the two villages. Because they going to toilet by the bank they must not toilet near the river. Is building the toilet expensive or not.

Accused 3:

It is not expensive to build toilets.

Judge:

How are you going to make it.

Accused 3:

Mud bricks, holes and zinc on top and also going to dig a hole for the rubbish and when it is full I burn it. I am going to stop using bad fertiliser. I am going to use dung.

Judge:

Says that you are going to be set free but the judge must call a meeting and must ask what they must do to make the environment clean. Your duties are to find out what you have done wrong and to the right thing.

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APPENDIX 3 BOX 17

DAY TWO, 1997

ACCUSED CREATES AN IMAGINED SITUATION WHICH HE ADMITS TO HARMING THE ENVIRONMENT

A mock court case to resolve disputes in their use of riverine resources

Judge:

Are you drinking the water?

Accused:

No because it makes me get sick.

Judge: Do you have fields?

Accused:

Yes, I am using bad fertiliser in the fields. I am dipping the cows near the river. Burning the grass because I was trying to kill the snake. I only saw one snake.

Judge:

Why did you burn the grass cause you saw a snake. The snake is part of the environment. Did you get the permission to burn the grass and the snake from the culture or elsewhere?

Accused:

I admit I am wrong.

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APPENDIX 3 BOX 18

DAY TWO, 1997

A WITNESS CREATES AN IMAGINED SITUATION WHICH SHE OBSERVED THE ACCUSED ABUSING THE ENVIRONMENT

A mock court case to resolve disputes in their use of riverine resources

Judge:

Can you tell the court why you saw these people undertaking their offense and the reasons why you consider them wrong actions?

Witness:

I saw him doing washing near the river and go to toilet near the river.

Judge:

When did you see him doing these things and where was he going?

Witness:

This man was going to the other village to shop.

Judge:

If you say you saw this man, did you not also go to the toilet there too?

Witness:

I saw him washing inside the river. I also saw him herding the cows near the river. He threw a dead cow into the river. This man does this because he does not want to build a toilet so he goes near the river. On that day the 14 November, he also called to me to come and swim with him in the river. But, I did not swim in the river.

* * * * *

APPENDIX 3 BOX 19	DAY TWO, 1997
EVALUATION SURVEY	
Evaluation of the workshop	

1. Did you enjoy the course?

- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes

- Yes
- Yes
- Yes

2. What did you enjoy?

- I enjoyed all what we have done.
- Is to learn about the important of nature.
- I enjoy learning about nature and how important it is to us.
- Nature is important and we should respect it.
- Is to learn about nature.
- all the things that I have learnt about.
- I enjoy to see full river.
- I learn about how to take care about nature and us.
- I enjoy to learn about nature and communicate with nature.
- I liked to go to the river and see what is wrong and what is right.
- I enjoy to speak to the people about nature and what I learn from their views how to protect nature.
- I enjoy learning about nature.
- To learn about the nature and the river.
- The importance of the environment to us and nature to us as a whole.
- The most important part I enjoyed was when we were taken out to the river to choose between the good and bad things.
- Educated through seeing things that make environment becomes so important to us.

3. What do you remember mostly?

- Not to chop wet trees near the river and not to use dangerous fertilisers.
- Dirty water caused by toileting into the river and throwing waste.
- Not to kill living creatures that lives in the water and not to pour washing water into the river.
- It must be kept clean.
- Not to chop young trees.
- Is the rubbish that is close to the river.
- I remember that when water is still it makes diseases.
- To build toilets and dig holes for burning rubbish and to clean the river.
- Not to chop young tree not to burn grass.
- Are the things that harm the river must not take place there.

- I remember that nature care and the river must be clean.
- Is to go to the toilet away from the river.
- Is not chopping the young trees but the dry ones'.
- The walk down the river and their beautiful sights and some bad sights I saw.
- Fields by the river that were being fertilised which caused the fish to die and trees to falls.
- Bad trees.

4. What was the most important thing you learnt?

- Build toilets dig rubbish holes.
- Respect and protect nature.
- Is to take care of water and keep it clean.
- In the past people used to go and fetch their water from the river and not boil it.
- Is to go to the river and study it.
- Is the dirty water.
- I learn how to communicate with nature.
- To keep the nature alive and keep our country beautiful.
- All we must do is to set up workshops on nature especially rivers.
- The water should always be used to clean to prevent sickness.
- The main thing is to take care of the river and the trees because they help to stop erosion.
- The only thing is that not to throw rubbish to the river.
- Is to go and learn about the river.
- Preserve and care for the river as it is the source of life to many creatures including human beings.
- Everything concern the environment and how to take good care of it.
- Everything about environment and also how to take care of it.

6. Was there anything that you did not like or made you feel nervous?

- Is throwing fertilisers.
- Is the dead fish and frogs in the water.
- Nothing.
- If, we should respect our environment not throwing papers and plastics in the water
- Rubbish and toilet are not allowed close to the river.
- Is that we don't care about the river but we depended on it.
- Is to chop tree that on the bank of the river.
- Is that we found out that we are drinking dirty water.

- All the littering such as papers and plastics cause the water to be dirty.

7. Did you tell anybody at home, your family, friends of what you learnt about your river and community?

- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes

8. What did you tell your family or friends of what you learnt about your river?

- I told them to dig rubbish holes.
- I told them about the importance of nature pure water.
- I told them about taking care of water and keep it clean all the time.
- River is important we should keep it clean.
- Not to chop wet trees.
- Not to chop wet trees.
- I told them about they must not drink dirty water.
- The ways of protecting environment.
- To respect our river and not to burn grass and chop young trees.
- I taught them about nature and they should respect it.
- I told my friends about the importance of the river and how to keep it clean.

- I told that they must take care of the river because we depend on it.
- Not to chop young trees and throw branches into the river.
- I told them about the trees and not drinking dirty water.
- That it is important to respect the river and the environment as a whole because we depend on each other anyway.
- Not to cut down the trees, not to burn the grass, not to toilet by the river.
- I told them not to exploit the environment.

9. Has the research program lead to any changes in your life thinking?

- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- No
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes

10. Can you list the changes that has occurred in your life

- If I could live a better life. To plant trees close to the river not wash our clothes near the river.
- Respect nature. To separate grazing camps and plant trees and grass.
- We should call a meeting with the community to tell them about nature. To build toilets, wash away from the river instead of using fertilizers we must use manure.
- I learn that we must take care of birds and river. I should stop people doing wrong things near the river.

- Not to throw litter into the river. Stop people from throwing rubbish into the river instead they must clean it.
- I know the things that I didn't know. It is to stop people from throwing dirty things into the river.
- If we protect nature and people take care of it. People must take care of nature.
- Plant trees to boil water before drinking. Is to teach about the things that affect nature because they will affect us too.
- There are many things especially not to throw rubbish into the river. Is to set up a project with the community to clean the river and to spot chopping woods near the river.
- Clean water and the aim of teaching those doesn't know. After every two weeks we must go and clean the river.
- I found out about my mistakes because I didn't know what the river is so important. Is to set up a project with the community to clean the river and to spot chopping woods near the river.
- Not to chop young trees and not going to the toilet in the river and throw fertilisers.
- We must not chop all the trees we must plant new trees. We must not throw papers and plastic into the river we must not wash ourselves into the river.
- Respect, conserve and love the environment. The world will thus be more beautiful and happy. Prevent soil; erosion, separated grazing camps to give growing chance to trees and grass.
- Stopped littering the water. Not to litter and to throw papers to the river water.
- I have stopped throwing rubbish everywhere I want too. Take care of the river, not to throw papers and fence by the river.

11. What measures to conserve the river will not work, give reasons?

- Remove ploughing field near the river.
- Is to plant the field but people must know that fertiliser are dangerous.
- To look after wires that have been thrown by people which cause blockages of water.
- Is to wrong things it will be your problem at the end of the day.
- No to let the people spoil the river.
- If I don't teach them well and use vulgar language which I teach them.
- -
- When we see somebody doing wrong thing to the nature we must stop them.
- Ploughing fields and animals are not good.
- Is to nominate volunteers to look after the river.
- Is the ploughing fields that are close to the river because we cannot remove them.
- N/A

- We must not chop trees that are close to the river.
- Nothing is impossible, thus we can conserve the river and any natural features.
- To throw lots in the river because it will block the water not to flow.
- Always toilet by the river, blocking of logs at the river.

12. What factors are preventing you to look after the river?

- Nothing
- Nothing
- Are the natural causes of nature.
- Is not following our beliefs and we have no respect.
- Nothing
- Is not knowing the importance of the river.
- Nothing
- Soil erosion
- Nothing
- Nothing
- Nothing
- We don't care about or beliefs we want to see it happen.
- Nothing
- I'll be lying if I mention one factor.

* * * * *

APPENDIX 3 BOX 20	1998
FURTHER REFLECTIONS OF THE ENVIRONMENTAL WORKSHOPS	
The Funders meet with the community to ask the community to reflect on the project.	

Nicky: How would like to tell the people how the project has helped you, would you like to stand up. How would like to do it?

Respondent 1: We have gained a lot from the project and there were things we did not know at first. Things like soil erosion. We have learnt now about it and what caused it. And we are also taught to plant trees near by the dongas and also taught which tree to cut and which tree not to cut. And, we are very excited and glad about it. And, how to catch fish. We thank you people for that. And, now, we can see the difference between the

clean and bad water. We can also thank you, ever since you came here there has been a decrease in sickness, for instance, stomach ache. Because we also as the community discuss about what you are teaching us. We are trying to improve but it is difficult because we don't have the same minds others are stubborn. Thank you.

Everybody laughing and agreeing ... full of agreement.

Respondent 1: Thank you.

Respondent 2: On behalf of the Hertzog people I say thank you. Ever since the project started we have gained. You have given knowledge to us and also to our children. And, we are very excited about the project. We knew that plastics and litter are dangerous to our livestock but we did not know other things that you have taught us. And we going to ask the young ones to take care of the dongas. It is difficult us old ones, because if we do take people to take care of the dongas we will have to pay and we do not have enough money as we are pensioners that is why I appeal to the youth to do the job. That is also about job creation because later there will be the work for that.

Respondent: [*Prays*] The lord must give those in charge of the project and help them to drive well on the way to their homes.

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APPENDIX 3 BOX 21	1998
FURTHER REFLECTIONS OF THE ENVIRONMENTAL WORKSHOPS	
The actress in role play in the 'communication' workshop asks participants to use communication as a means to reflect on the environmental awareness workshops	

Participant 1: It was the time when were doing drawing near the river, the good and bad ones.

Actress: How was it? Good, Bad?

Participant 2: It gave us knowledge about the environment, it was very good.

Actress: What did you learn from it?

Participant 2: Not to throw plastic in the water and we learn not to make the water dirty.

Actress: Did it help you?

Participant 2: Very much.

Actress: I don't want only one person to talk to me?

Participant 2: It helped us not to throw bottles near the river and not to cut the trees nearby the river and not to toilet near the river.

Participant 3: In our group we found out that when the water come out from where it is open it comes out clean and when it goes around other places it becomes dirty this is because of litter because we do washing by the river and also toilet and the water becomes dirty because of that. So, now we have learnt a lot to keep the water clean.

Actress: Yes.

Participant 3: Yes, because water is so important and because of the change of cultural beliefs the water is not so important. Our ancestors respected the river and any place with water.

Actress: Do you agree to what she said?

Participant 4: When we talk about the importance of the water we are glad and we enjoyed.

Participant 3: Environment is so important so it needs protection.

Actress: Can you explain.

Participant 3: For example, if you cut down the tree you have killed it. If you go and do washing near the river with the soap then the clean water is no longer there because it has been littered by the soap. So that is why we need to protect it, like fish.

Actress: So you are saying that we must not do any of these things by the river?

Participant 3: If the water dries out at the dam the fish will die. And also the rocks in the river are important so we must stop doing the wrong things nearby the river. Because like living animals in the river, like fish and frogs and crabs.

Actress: We have finished with this group, thank you.

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APPENDIX 3 BOX 22	1999
FURTHER REFLECTIONS OF THE ENVIRONMENTAL WORKSHOPS	
The journalist ask community people to reflect on the environmental awareness workshops	

Journalist 1: Please can you tell me what you gained from the environmental workshops in 1997?

Respondent 2: After Nicky came into the village with the project we've gained a lot, I feel alright now, because we are now using clean water. I know how to look after the river now, and how to keep the place where I stay clean, not full of plastic that are like flowers around

the village. These plastic are very dangerous to animals because when they eat it they die. People used to go shopping and throw plastic away where the animals can eat it. Now when I see plastics I pick it up. Things are better now, But, that is not to say I was sick before, now I just feel healthier.

Journalist 1: Did it help you?

Respondent: Very much, we learnt much.

Journalist 1: Do you share what you learnt?

Respondent: Yes I do, sometimes they don't listen to me in our place because we are black. I try to tell the neighbours.

Journalist 1: What do you think can be done?

Respondent: We need more workshops to show how to clear up the river, if it is not a white person they won't listen. I remember when they were trees in the river and they were chopped down. It is better to put into action rather than saying words.

Interview in Fairbairn:

Respondent: First thing which is important to us all is that we improve the environment of the river and our health as well.

Journalist 2: Do you think that things have improved already?

Respondent: Yes, they used to wash next to the river, now they don't do that.

Journalist 2: Have all the aims of the project been met?

Respondent: Yes.

Journalist 2: What aims, the river, what else?

Respondent: More life in the river and they used to use diesel pumps for irrigation. The diesel pumps were next to the river and the diesel pumps oil was going into the river and polluting it. This is no longer happening, we are using different pumps.

Journalist 2: Who do you think has benefited in the community?

Respondent: I think all of us.

Journalist 2: Do they know this?

Respondent: They do.

Journalist 2: Do you think that there has been anything in this project that hasn't worked yet?

Respondent: No.

Journalist 2: Issues of poverty - have they been addressed.

Respondent: Not gender, poverty yes.

Journalist 2: Any other external support?

Respondent: Just Nicky's.

Journalist 2: What still needs to be done?

Respondent: A lot.

Journalist 2: Like what?

Respondent: No work, unemployment, no electricity, no water, no transport, no communication, no telephone.

Journalist 2: Do you think this project has helped you?

Respondent: Too much!

Journalist 2: Too much! Anything you would like to tell the people in the catchment?

Respondent: Yes, I can say I want to encourage them how important the environments is.

Journalist 2: Why do you feel the environment is important.

Respondent: What happens is we depend on the environment and the environment depends on us.

Journalist 2: What about the community are they united? Can you tell me anything about them?

Respondent: Yes, we have a choir that started this year and a rugby and a soccer team.

Interview with Elder of Fairbairn in 1999

Journalist 2: Have things gotten better since the project started?

Respondent: Things are much better.

Journalist 2: How?

Respondent: We have learnt about the protection of the river like not cutting down some of the trees. We also used to have the problem of soil erosion coming into the river and the rocks blocking the pipes. Now we can go there and collect rocks and throw them away.

Journalist 2: Who has benefited and what has failed?

Respondent: The community has benefited because we have learnt much out of this project. because Nicky has come to use and she teaches us things we didn't know and now we understand. Like the fishes that live in the river, we know that they are ill. The bridge has not yet been built but we are hoping that it will. The surveyors have come and measured all the stuff.

Journalist 2: What external support has there been? The surveyors, Nicky, who else?

Respondent: I've been out of the village for a long time so I don't know.

Journalist 2: What still needs to be done, other than the bridge?

Respondent: We need a committee hall. Our children cannot do activities because there is no hall.

Journalist 2: And they can't use the school?

Respondent: No they can't use the school.

Journalist 2: Why not?

Respondent: Because the school must always stay the same. Some children don't behave well so the school doesn't need those kinds of people misbehaving because there are some flowers which they damage.

Journalist 2: Have you learnt a lot about the environment and shared this with anyone?

Respondent: Yes, I have shared with my children.

Journalist 2: What is your message to other communities?

Respondent: I tell other villages they not to waste the things which are there. Try to keep them well and try to tell others what we have learnt. Try and listen to other people because we have learnt much.

Journalist 2: So how have you benefited from what you have learnt?

Respondent: Stop cutting the trees and leave them. That tree is going to help them. When it is hot you are going to sit under it for shade.

Journalist 2: Did anyone have this knowledge when it started?

Respondent: No we did not understand.

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Appendix 4

Chapter 9 – Group Growth in the Kat River Valley

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APPENDIX 4 BOX 1	1999 -2000
THE KRVP DIARY (JANUARY 1999 - DECEMBER 2000)	
The dates, processes, inputs and outputs of the each activity.	

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
F =99	<ul style="list-style-type: none"> - Learned from Australian experience - Developed networks at DWAF & in Australia 	<ul style="list-style-type: none"> - Attended Second Australian Stream Management Conference - Prepared report on Australian lessons learned 	<ul style="list-style-type: none"> - Awareness of institutional structures, education systems, public participation methods & development of contacts 	
M =99	<ul style="list-style-type: none"> - Visited Fairbairn community to feedback PhD work & to allow local stakeholders input in the project development 	<ul style="list-style-type: none"> - Used visual feedback techniques & oral accounts from participants 	<ul style="list-style-type: none"> - Fairbairn community started to become co-managers & planners of the KRVP 	<ul style="list-style-type: none"> - Fairbairn community reinforced the need for a formal structure for water resource use
A =99	<ul style="list-style-type: none"> - Employed grassroots research assistant - Developed skills in research assistants 	<ul style="list-style-type: none"> - Lessons learned from PhD applied to new project 	<ul style="list-style-type: none"> -Research assistants acquired English & basic computer skills - Research assistants read literature on catchment management 	<ul style="list-style-type: none"> - Research assistants achieved an understanding of Water law & catchment management
M =99	<ul style="list-style-type: none"> - Visited catchment stakeholders & communities 	<ul style="list-style-type: none"> - Social survey of catchment communities & their resource use 	<ul style="list-style-type: none"> - Understanding of socio-economic issues in the catchment 	
M =99	<ul style="list-style-type: none"> - RU Journalism students were approached to develop a newsletter 	<ul style="list-style-type: none"> - Developed newsletter - Newsletter widely circulated 	<ul style="list-style-type: none"> - Journalism students gained practical experience & learning - Network developed between KRVP & the Journalism department 	<ul style="list-style-type: none"> - Newsletter introduced the concept of local and government stakeholders to the Kat River Valley communities

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
J =99	- Drama events at schools explained River Health	- A RU Geography student developed an educational programme to promote river care at Fairbairn & Hertzog Primary Schools - Awareness of SASS4	- Awareness of the need to promote better pollution control	- Raised awareness of the rights of river resources
J =99	- Planned the implementation of River Health Program	- Networked with River Health Programme (Rhodes) - Selected sites for River Health Survey - Mobilised team for River Health work - Team building exercises were organised in order to create a common vision for the biophysical scientists	- Local stakeholders were made aware of the River Health Programme	
A =99	- The implementation of River Health Programme	- Methods were trialed for the River Health Programme - Conducted River Health surveys - Published River Health Report	- Awareness of catchment scale & Natural Resource Management was created	- Distributed & presented River Health Report at Stakeholders = Meeting in October - Raise questions regarding the Reserve
A =99	- Catchment Resource Management awareness raising in rural schools	- An Environmental Educator & the Catchment Research Creative Group were employed - Schools contacted & programme initiated	- Catchment children: . shared their local natural resource knowledge . explored good management systems . developed dramas of resource management	- Kat River Valley children performed resource management dramas at the Stakeholders = Meeting in October

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
			- Jane Burt provided a report on Environmental Education work in the KRVP	
A= 99	- Evaluation of newsletter Vol.1 No.1 by a Journalism student	- Research skills were acquired by the student	- Strengths & weaknesses of the newsletter were shared and informed the 2001 edition	
A= 99	- Steering Committee Meeting	- Research Report		
S '99	- Networked with National Stakeholders - Shared learnings from the KRVP with Water Managers of South Africa, WRC & DWAF	- Presented a talk at the WRC Seminar: .Tools to Facilitate & Support Stakeholder Involvement in Mutli-Issue, Multi-Party Processes . Photographic display of the KRVP presented at the Catchment Management Initiative: Experience Sharing.		- Networked, learned & shared with other practitioners & national stakeholders
S =99	- Built local stakeholders' capacity to participate in Stakeholders Workshop in October	- Community & individual meetings were held to develop an understanding of the Water law, CF & WUA Constitution. -Communities selected skilled representatives to attend the Stakeholders' Meeting	- Stakeholders selected relevant, skilled representatives to attend the Stakeholders Workshop - Grassroots assistance provided support to the stakeholders chosen to attend the meeting	- Stakeholders gained an awareness & understanding of Water law, WUA & CF - Prior to the Stakeholders' Workshop the stakeholders additional needs were incorporated into the agenda
O =99	- Stakeholders Workshop - Presented the Water Act in the form of dramas	- Contacted & involved outside facilitators for the Stakeholders Workshop - Developed an agenda	- Stakeholders committed to forming a representative & inclusive WUA that supports catchment management activities	- Community elected to have WUA & CF. - Community elected WUA Steering Committee.

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
		<ul style="list-style-type: none"> - Send out invitations - Facilitators gained an understanding of the Water law & WUA Constitution - Hosted the Stakeholders workshop 		
N/D =99	<ul style="list-style-type: none"> - Three open meetings were held to finalise the WUA Draft Constitution - Provided information to WUA Steering Committee 	<ul style="list-style-type: none"> - Collated current DWAF information for Steering Committee members - Set up a support programme to inform former marginalised group to ensure participation (translated draft constitution into Xhosa, used drama & discussion groups) 	<ul style="list-style-type: none"> - Informed local stakeholders of the WUA Draft Constitution - Stakeholders made a commitment to WUA Constitution & voting areas 	<ul style="list-style-type: none"> - Draft WUA Constitution sent to Minister - Draft voting areas agreed
D =99	<ul style="list-style-type: none"> - Umlambo Drama Festival with school children enabled an understanding of catchment principles & concepts 	<ul style="list-style-type: none"> - Local schools put on dramas, choirs & dances - Local stakeholders were invited to watch - Sponsorship received from DWAF & Coca-Cola 	<ul style="list-style-type: none"> - The performances brought stakeholders together & highlighted the need to work together - Provided an opportunity to network & establish catchment relationships - Presented the concepts of scale, upstream & downstream, integration & collaboration - Provided an opportunity for the children to present & celebrate their learning 	<ul style="list-style-type: none"> - Stakeholders met and exchanged experiences - This laid the foundation for the CF
F =00	<ul style="list-style-type: none"> - Provided information to WUA Steering Committee 	<ul style="list-style-type: none"> - Contacted relevant resource outlets for materials e.g., Water law documents 		<ul style="list-style-type: none"> - Kept the WUA Steering Committee informed

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
M =00	- Introduced biophysical scientists & GIS specialists to project & catchment	<ul style="list-style-type: none"> - New research projects provided by the former: <ul style="list-style-type: none"> . water quality with attention to detergents . participatory GIS . soil rehabilitation - Gave KRVP data to new researchers - Held discussions with & guided new researchers - Introduced new researchers to local stakeholders & research assistants 	- Cohesive team with multi-skills	- New researchers supported Cf and WUA functions, e.g., used participatory GIS to map the voting boundaries with the local stakeholders
M =00	- Conducted environmental awareness workshops in 9 rural communities	<ul style="list-style-type: none"> - Developed a well conceptualised programme to encourage awareness & commitment to catchment management - Planned with the rural communities (venues, times, roles & responsibilities) - Workshops were implemented - Outline of the Draft WUA Constitution was presented to the rural communities 	<ul style="list-style-type: none"> - Awareness & commitment to catchment management were achieved - Accountability to the Draft WUA Constitution was achieved 	<ul style="list-style-type: none"> - Widespread knowledge of the WUA was achieved - The distinction between WUA & CF was grasped - The awareness of the need for a CF among local stakeholders was acknowledged - Communities were given the opportunity to elect a member to represent them on the CF

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
M =00	<ul style="list-style-type: none"> - Entered into the Nedbank/Mail & Guardian Green Trust Awards 2000 	<ul style="list-style-type: none"> - Local stakeholders & outside stakeholders commented on & evaluated the KRVP - Development of a scrapbook that provided of a narrative of the KRVP & allowed the voices of the stakeholders to be heard 	<ul style="list-style-type: none"> - Grassroots research assistant accepted Finalist Award in Pretoria - Prize celebrated in the Kat River Valley with the planting of donated trees in villages & commercial farms 	<ul style="list-style-type: none"> - Encouraged CF function (sustainable water resource management)
M =00	<ul style="list-style-type: none"> - Aids Awareness play developed with Kat River Valley & Grahamstown school children for the SASOL SciFest 2000 held in Grahamstown - The Kat River Children after their performances attended the SciFest Water World 	<ul style="list-style-type: none"> - Collaborative project 	<ul style="list-style-type: none"> - The children learned how to work together, share their experiences & learning - These are the basic principles of catchment management - The children gained confidence & won prizes at the SciFest Water World quiz - These winnings highlighted that the environmental education programme run in 1999 had successfully taught the children about water resource management 	
M =00	<ul style="list-style-type: none"> - Presented papers at Sussex University, U.K. - Networked with Institute of Development Studies (IDS) 		<ul style="list-style-type: none"> - Networked & placed on mailing list of the IDS 	

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
A =00	<ul style="list-style-type: none"> - Re-worked WUA Constitution with the WUA Steering Committee 	<ul style="list-style-type: none"> - Participatory GIS for mapping voting boundaries - Compiling & submitting the WUA constitution 	<ul style="list-style-type: none"> - Local stakeholders participated throughout the process, thus ensuring accountability 	<ul style="list-style-type: none"> - An accountable & inclusive document
J=00	<ul style="list-style-type: none"> - >Way Forward Workshop' was held in 15 villages & provided an opportunity for villagers to introduce their CF members - Xhosa booklets that detailed the results of the environmental workshops were presented to participants - The WUA Constitution & the voting boundaries were also presented 	<ul style="list-style-type: none"> - Booklets compiled to give feedback to participants of the environmental workshops - Booklets highlighted concepts of catchment management (catchment scale, integration, environmental threats & opportunities) 	<ul style="list-style-type: none"> - Provided an opportunity for people to ask questions & clarify issues - Each community discussed & set objectives for the CF, both locally & at a catchment scale 	<ul style="list-style-type: none"> - Elected members for CF
J/J =00	<ul style="list-style-type: none"> - Bus trip through the valley from village to village with the elected members of the CF - The KRVP provided each CF representative with a map on which to record their observations of every village visited - This mapping exercise was undertaken to prepare the stakeholders for the Action Planning Workshop 	<ul style="list-style-type: none"> - Representatives from the 15 rural communities were able to present their local socio-physical conditions to one another & explore ways of helping each other - The representatives were then encouraged to discuss their findings with the group - The ultimate goal was to create a picture of the 15 villages= catchment conditions, allowing each representative to appreciate the boarder catchment context 	<ul style="list-style-type: none"> - An opportunity to meet & build a spirit of co-operation within the CF - The CF learned the importance of mapping & gained the skills to read a GIS map - The CF were able to use the GIS maps on the bus trip to identify different villages & socio-physical conditions 	<ul style="list-style-type: none"> - Learned from each other's experiences

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
J/J =00	A two day workshop with WUA Steering Committee & CF was held to draw up Action Plans for their catchment	- Logical frameworks (in conjunction with GIS maps) were used to tabulate the WUA Steering Committee & CF's desired actions	<ul style="list-style-type: none"> - The Action Planning workshop laid the basis for preparing a Landcare proposal with the stakeholders - The expected outcome of the Landcare programme is a range of action plans that will ensure the sound & sustainable management of the Kat River Valley resources - Some of the functions have been taken on by the CF, e.g., Seymour has approached the Minister for an apology concerning the flooding of their graves during the building of the Kat Dam 	<ul style="list-style-type: none"> - The CF & WUA agreed upon actions to implement - The CF made contact with the Landcare programme to carry out some of the agreed functions
J/J =00	<ul style="list-style-type: none"> - The WUA held a meeting with service providers (Amatola Water (Amanzi & Water and Sanitation Services South Africa) to discuss the need for service providers to fulfill primary functions of the WUA (e.g., to provide water for the beneficial use of members, to monitor & control the abstraction of water from the river & release of water from the Kat Dam; and to recover costs of managing the water resource from water users) <p>Amanzi & Water and Sanitation Services South Africa Amatola Water both gave presentations to the WUA steering committee & CF</p>	- Provided a forum for all parties to meet	- Networked & sought the best service providers	<ul style="list-style-type: none"> - WUA & CF worked closely together so as to ensure accountability - WUA moved towards implementation of Constitution

Date	Process	Inputs	Outputs	IMPLICATIONS FOR CF/WUA
A =00	- Steering Committee meeting.	- Research Report		
S =00	- Presented papers at Cambridge University, U.K.			
S =00	- Journalism students contracted to develop a second newsletter		- Newsletter still in process	- To inform WUA & CF of all the events and the need to plan for the Reserve
O/D =00	- Final Report			

APPENDIX 4 BOX 2	1999
REPORT ON STAKEHOLDERS' WORKSHOP - OCTOBER 1999	
The report was either hand delivered and posted to participating stakeholders	

Outcome of Community Workshop To Establish A Water User's Association

Kat River Valley

March 2003

for the Kat River Valley Community

Nicole Motteux and John Fargher

Geography Department, Rhodes University

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Program

The Kat River Valley Project convened a community workshop to initiate formation of a water users association and catchment forum for the Kat Valley. The workshop was held on 12 and 13 October 1999 at the Mpofu Training Centre and was attended by 25 participants. The program is presented below.

TUESDAY, 12 October 1999

- | | |
|-------------|--|
| 0930-0940 | Welcome and opening, (Fairbairn Youth Group) |
| 0940-0950 | Introduction to Kat River Project and workshop purpose
(Nicole Motteux, Project Officer) |
| 0950 – 1030 | Introduction to new water policy framework for South Africa
(Dr Ralph Heath, Randwater, Johannesburg) |
| 1030-1100 | Morning tea |
| 1100-1140 | Review of the health of Kat River – is it at risk?
(Dr Kate Rowntree, Rhodes University) |
| 1140-1200 | Introduction to stakeholders
(Mr Nkaiy, Hertzog Community and Mr Khorommbi, DWAF) |
| 1200-1230 | Small group work to identify values of Kat River
(this was to identify the things that are important to stakeholders about the Kat River Valley; it includes economic, social and environmental values) |
| 1230 - 1245 | Report back values from 4 groups |
| 1245 - 1345 | Lunch |
| 1345 – 1415 | Small group work to identify opportunities and threats
(this was to identify opportunities for improving the values of the Kat River Valley and things that threaten these values) |
| 1415-1430 | Report back opportunities and threats from 4 groups |
| 1430-1515 | Identify overlapping stakeholder values, opportunities and threats |
| 1515-1530 | Afternoon tea |
| 1530-1600 | Participant allocation of priorities for management of Kat River values, opportunities and threats |
| 1600-1630 | Identify opportunity for a catchment forum to manage the Kat River Catchment
(Konanani Khorommbi, DWAF; Ralph Heath, Rand Water) |

WEDNESDAY, 13 October 1999

- | | |
|-----------|--|
| 0930-0945 | Welcome and opening (Fairbairn Junior Primary School) |
| 0945-1030 | Action planning for establishment of a Water Users Association (WUA) |

1030-1100	Morning tea
1100-1300	Preparation of draft constitution for the Kat River Valley Water Users Association (KRVWUA)
1300-1345	Lunch
1345-1415	Example of action planning for priority opportunity
1415-1515	Review of Kat River Valley Project and where it should add value from now on

Identification of Values

Workshop participants were asked to identify the values of importance to them in the Kat River Valley. The purpose of this activity was to identify the things that are important to stakeholders about the Kat River Valley, including economic, social and environmental values. Working in two small groups, participants first recorded their values individually, then shared these in their small group, and prepared a consensus list of values. Post-It notes were used to record identified values, then the pin board technique was used to cluster values and name the cluster. Each group then nominated a spokesman to present small-group findings to the whole meeting.

The consensus values reached by participants were consistent between the small groups, and included:

Chart 1 : Kat Valley Values Identified by Participants

Core Values	Detailed Participant Values
Water for human consumption	<ul style="list-style-type: none"> • Kat River water is important firstly for human consumption • Kat River firstly is important because the community uses water for consumption • Water that is essential for life • Water sustains life in the area • The valley gives us water, timber and mud to build our houses • Water is needed in Mankazana • Water is available for drinking • There is water for cooking
Water for washing and bathing	<ul style="list-style-type: none"> • Kat River provides water for washing/cleaning • The river gives water for household use – cooking, cleaning and washing • Water is important for domestic use • We can wash and bathe in the Kat River • It is important for our cleanliness
Water for economic activity and revenue	<ul style="list-style-type: none"> • River drives sustainable economy of the valley • River can be an indirect job creator from citrus production and tourism • River has potential for development • Irrigation potential creates new jobs • Infrastructure for export of citrus from valley • Water is driving the local economy
Water access and tenure	<ul style="list-style-type: none"> • There is enough water to keep agricultural programs viable • Most people have access to water in the valley

Core Values	Detailed Participant Values
Water for irrigation	<ul style="list-style-type: none"> • Kat Dam – providing reliable and adequate distribution of water • Healthy citrus trees that produce high quality fruit • Water for irrigation and development • Landscape with potential for new dams • Water for irrigation to help the community • Water for irrigated farms and other arable land • Citrus farms irrigated with river water • Water is important for irrigation
Water for livestock	<ul style="list-style-type: none"> • Water and grazing land for livestock • Water for irrigating livestock fodder • There is water for livestock • Kat River water is important for our livestock
Multiple purposes of water resources	<ul style="list-style-type: none"> • Water for farming • This is a rural area and water in the catchment • The valley has research potential
Scenic quality of catchment and its forests	<ul style="list-style-type: none"> • The veld and forests look green and we benefit from that • The trees and grass depend on us to survive • Nature reserves in the Kat Catchment • Our area is green
Biological diversity of the catchment and its ecosystem	<ul style="list-style-type: none"> • Water is useful for fish, frogs and insects • The river gives life to the local ecosystem • The river keeps our fishes in good health • Water that sustains biodiversity
Recreational and tourism uses of catchment	<ul style="list-style-type: none"> • River is part of greater tourist area • The valley has forestry and a game reserve to preserve the environment and attract tourism to our area • Water is used for recreation and tourism • Recreation with fishing and boating
Water quality in the Kat River	<ul style="list-style-type: none"> • Good quality water in the Kat River • Clean water is needed in communities (sifuna amanzi acocekiley)
Sense of community in the Kat Valley	<ul style="list-style-type: none"> • The feeling of community in the Kat Valley • There is friendship – we know each other • Our culture is in this valley • Water helps preserve our culture as some of our traditions are related to water
Cultural importance of water	<ul style="list-style-type: none"> • The valley has indigenous fish and tree species with traditional uses and values • Water is life, and also water is death
Resources for industry expansion	<ul style="list-style-type: none"> • The valley has soils suited to irrigated cropping and citrus farming

The values identified by participants focused on water and the Kat River. This may be because the focus of the workshop was a water users association and catchment forum.

Identification of Opportunities

Workshop participants were asked to identify opportunities in the Kat River Valley. The purpose of this activity was to identify opportunities for regional economic development and integrated resource management. Working in two small groups, participants first recorded their opportunities individually, then shared these in their small group, and prepared a consensus list of opportunities. Post-It notes were used to record identified opportunities, then the pin board technique was used to cluster opportunities and name the

cluster. Each group then nominated a spokesman to present small-group findings to the whole meeting.

The consensus opportunities reached by participants were consistent between the small groups, and included those set out in Chart 2.

Chart 2 : Opportunities Identified by Participants

Core Opportunities	Detailed Participant Opportunities
Sustainable citrus industry	<ul style="list-style-type: none"> • Develop ISO14000 accreditation for citrus farms and packing sheds • Work towards organic certification of export citrus orchards • Extend or develop new orchards to increase income • Expand irrigable area through more efficient water use • Prune un-managed trees and return them to production; • Restore or replant mismanaged citrus farms • High quality citrus production resulting in economic growth and employment • Improve the taste of Kat Valley citrus
Establish water resource group	<ul style="list-style-type: none"> • Establish a catchment forum in Kat Valley • Establish a water users association so that people know their rights in water • Establish a water management institution • Make decisions about water availability through WUA and CMA • Form WUA urgently and take over operation of Kat Dam – so that it meets the needs of regional stakeholders • Have a management committee that will look after the industries that can be sustained in the Kat River
Implement new dam release program	<ul style="list-style-type: none"> • Change dam releases to get water on time • Maintain dam safety • We want weir to have enough water (si funa iiwerei sibenamanzi aneleyo) • Improve storage capacity and distribution of water

Core Opportunities	Detailed Participant Opportunities
Environmental management	<ul style="list-style-type: none"> • Move water closer to people and livestock to minimise damage to river and preserve the river with riparian zone fencing • Establish the reserves for the Kat River • Bio-monitoring for river health • Soil erosion monitoring and soil conservation • Secure invertebrate animal habitat • Regulate sedimentation to maintain deep water
Job creation/regional economic development	<ul style="list-style-type: none"> • Expand citrus farms to create new jobs, increase exports and boost regional economy • Brand and promote regional products to increase acceptance and demand • Grow quality agricultural products for export • Establish new citrus projects for new farmers • Develop real eco-tourism in valley • Develop income generating programs in forestry, citrus farming and eco-tourism • Start a fund to finance a study into tourism • Water creates employment in agriculture
Secure tenure for water	<ul style="list-style-type: none"> • Give access to water for everyone to make a better life • Use new National Water Act to fullest extent for securing benefits to all stakeholders
Develop sustainable fish industry	<ul style="list-style-type: none"> • Train people in fish production • Control fishing to manage resource better • Build factory to process river fish • Re-stock the river with desirable fish species • Establish aquaculture to keep fish in our waters
Maintain and develop infrastructure	<ul style="list-style-type: none"> • Develop alternative water sources including roof tanks • Upgrade bridges and culverts • Maintain infrastructure of the whole region • Construct shed in the lands • Fix weirs that cannot currently support pumping • Build small swimming pools to keep kids away from river
Training, capacity building and education	<ul style="list-style-type: none"> • Develop water conservation training program • Develop local catchment planning guidelines • Training people in water importance and management • Educate communities about the importance of water • Training to use water very efficiently • Train small farmers in best practice irrigation to preserve water and increase productivity • Develop ourselves promptly
Regulation to enforce integrated catchment management	<ul style="list-style-type: none"> • Land management controls for water quality improvement • Existence of the National Water Act that provides a national framework for water resources management • Use water metering to encourage water conservation

Core Opportunities	Detailed Participant Opportunities
Remove alien trees in the riparian zone	<ul style="list-style-type: none"> • Remove alien trees that take a lot of water • Removal of aliens through working for water and rehabilitation of riparian vegetation • Start timber-based industries based on riparian zone aliens • Establish a project to reduce alien trees that absorb lots of water
Empower regional stakeholders	<ul style="list-style-type: none"> • Use environmental education to improve knowledge of environment and foster sustainable management of water resources • Discuss options for river management to get quality water by involving all stakeholders • Use DWAF educational programs/talks to educate catchment communities about water • Develop better understanding of the broad picture of water usage • Have ability to say with regard to water use
Access emergent funds and subsidies	<ul style="list-style-type: none"> • Use RDP funds to build bridges to avoid drowning of people during floods • Use RDP funds to build small dams or weirs for domestic consumption • Make use of DWAF subsidy schemes for emerging farmers
Take responsibility for own catchment	<ul style="list-style-type: none"> • Use commitment by stakeholders to facilitate public inputs to KRVP • Develop capacity to look after water • Develop a demand management and water conservation plan for the catchment • Educate people to accept responsibility for their own future, and get involved in matters concerning them
Market catchment to Minister and local government	<ul style="list-style-type: none"> • Bridge the gap between Kat communities and DWAF • Get Minister of Water Affairs to visit area and understand problems and opportunities, and seek his support for implementation of catchment plan
Non-citrus irrigation	<ul style="list-style-type: none"> • Irrigation of salad vegetables for local markets • Irrigation of cabbages for regional markets • Start experimental plots to demonstrate other high income crops suited to area

Identification of Threats

Workshop participants were asked to identify possible threats to water resources in the Kat River Valley. The purpose of this activity was to identify threats to water resources that could be overcome with better management. Working in two small groups, participants first recorded their perceived threats individually, then shared these in their small group, and prepared a consensus list of threats. Post-It notes were used to record identified threats, then the pin board technique was used to cluster threats and name the cluster. Each group then nominated a spokesman to present small-group findings to the whole meeting.

The consensus threats reached by participants were consistent between the small groups, and included those set out in Chart 3.

Chart 3 : Threats Identified by Participants

Core Threats	Detailed Participant Threats
Lack of communication	<ul style="list-style-type: none"> • Lack of communication between the communities themselves • Lack of communication between all Kat River water consumers • There is a gap between DWAF and the communities • People may not realise their potential/strengths • Not to see opportunity to work together and not communicate • Not to get a partnership between all stakeholders – water users, local government and DWAF • Not working together as a team
Unsustainable land use	<ul style="list-style-type: none"> • Sand mines along the river • Overgrazing causes soil degradation • Siltation caused by poor land use/management • Open access of stock to river • Siltation and pollution by incorrect sewerage and agricultural practices • Bushfires • Pollution of the river by timber industries upstream • Density of population is unsustainable
Pollution of river	<ul style="list-style-type: none"> • When DWAF stops supplying us with water we get very bad water quality in the river • Pollution from diesel pumps on river • Graves close to river • Water quality – salinity for irrigation • Diesel pumps on river • Washing clothes next to river • Soil erosion causing sedimentation • Over-population along river • Lack of proper ablution facilities along river • Poor catchment management pollutes river • Use of chemicals near the river • Throwing plastic, trees and stones in river • Ablution near the river • Dead animals in the river and erosion
Unsustainable water use	<ul style="list-style-type: none"> • Unsafe conveyance of water from river to communities • Poor irrigation practices • Poor fertiliser application practices • Irrigation back-flows to river decrease water quality • Dam safety due to floods • Irrigation drainage returning to the river • Mismanagement of water resources • Drought and floods • No control of water use in agriculture
Weeds and alien trees	<ul style="list-style-type: none"> • Overgrown vegetation and alien trees along river • Cutting trees can cause soil erosion • Alien vegetation encroaches into river area and uses water • Cutting down trees close to river causes erosion • Overgrazing can cause soil erosion • Poisonous trees and bushes along river • Noxious weeds in the river banks

Lack of financial and information resources	<ul style="list-style-type: none"> • Inability of some to pay for water • Indifference of water users and unwillingness to accept responsibility to sort out water problems locally • Too many unfilled posts in DWAF – regional staff cannot give Kat River attention it deserves • People don't know their rights • Lack of skills or time constraints • Lack of finance for development schemes
Competition for water	<ul style="list-style-type: none"> • Different interests in the use of the Kat Dam • Increasing water demand for irrigation and human needs with fixed supply • Too many people in catchment – river cannot support so many • There are large areas that can be developed for irrigation but this could cause water to be scarce • Extreme drought
Changes in water rights	<ul style="list-style-type: none"> • Lack of water rights to commercial farmers and lack of information regarding registration and payments • Taking away existing water rights • Reduced access to the Kat Dam
Wasting the resource	<ul style="list-style-type: none"> • Ineffective management – wasting the resource • Poor quality fruit due to water salinity
Lack of equity	<ul style="list-style-type: none"> • Un-equal water distribution and allocation

Allocation of Priorities

Participants were asked to rank priorities by allocating three votes against core opportunities and three votes against core threats. The results are presented in Charts 4 and 5 respectively.

Chart 4 : Participant allocation of priorities to opportunities

Core Opportunities	Participant Ranking
Sustainable citrus industry	8 (ranked equal 3)
Establish water resource group	11 (ranked 2)
Implement new dam release program	8 (ranked equal 3)
Environmental management	0 (no rank)
Job creation/regional economic development	3 (ranked 6)
Secure tenure for water	2 (ranked equal 7)
Develop sustainable fish industry	0 (no rank)
Maintain and develop infrastructure	0 (no rank)
Training, capacity building and education	2 (ranked 7)
Regulation to enforce integrated catchment management	0 (no rank)
Remove alien trees in the riparian zone	14 (ranked 1)
Empower regional stakeholders	8 (ranked equal 3)
Access emergent funds and subsidies	0 (no rank)
Take responsibility for own catchment	2 (ranked equal 7)
Market catchment to Minister and local government	2 (ranked equal 7)
Non-citrus irrigation	0 (no rank)

Chart 5 : Participant allocation of priorities to threats

Core Threats	Participant Ranking
Lack of communication	9 (ranked 3)
Unsustainable land use	3 (ranked 7)
Pollution of river	7 (ranked 6)
Unsustainable water use	0 (no rank)
Weeds and alien trees	14 (ranked 1)
Lack of financial and information resources	8 (ranked equal 4)
Competition for water	8 (ranked equal 4)
Changes in water rights	0 (no rank)
Wasting the resource	11 (ranked 2)
Lack of equity	0 (no rank)

Preparing an Action Plan for Priority Activities

An action plan sets out information, roles and responsibilities needed for implementation of a particular activity. Participants at the workshop developed the example set out in Chart 6 – it addresses the highest ranked priority opportunity and threat.

Chart 6 : Action plan for removal of alien trees from riparian zone

Key Component	Action Plan
What will we do?	Remove <i>Sesbania</i> , willows and other alien trees from the river banks and riparian zone of the Kat River from the Kat Dam to where the Kat River joins the Fish River.
What inputs are needed?	<ul style="list-style-type: none"> • communities need to be prepared to work on the project; • prepare scientific audit of issues and alien impacts; • prepare business plan and submit to Guy Preston at DWAF; • negotiate with Council of Churches (EL) to attract additional support for involvement of local women; • tools and work in the field to remove trees; • production of fire wood or charcoal where possible; • revegetation with seedlings and seeds of indigenous plants; •
What happens if we do nothing?	Water transmission in the river will be less efficient, riverine habitat will continue to be degraded and river banks will be less stable
Who will do it?	Communities of Hertzog, Fairbairn, Seymour, Balfour, Fort Beaufort and other catchment communities willing to join Chieftaincy Ngomo to approach Council of Churches Jerry Ntsebeza to coordinate community commitment Nicole Motteux to coordinate DWAF support Professor Kate Rowntree to coordinate scientific audit
How much will it cost?	Unknown at this stage but estimated to be between R500,000 and R1,000,000
What are the benefits?	Increased water use efficiency in the Kat River, improved habitat and
Who will benefit?	Community members will benefit from work in the short-term and improved water quality and regional ecosystem health in the long term. Water users will benefit from improved water use efficiency.
Who should pay?	DWAF should make major contribution from “Working For Water” Program. Council of Churches could make contribution for involvement of women – perhaps targeting small enterprise opportunities from harvested wood such as charcoal production, firewood production or wood for small-scale milling. Water Users Association should make a contribution in recognition of improved water efficiency in the Kat River.
When do we need to do it?	The business plan should be prepared before February 2000 and the project implementation should start by July 2000.

Key Component	Action Plan
How long will it take?	The project could have a 12 to 24 month duration.
How will we know it has been done?	Alien tree density along riparian zone will decrease, numbers of alien trees in riparian zone will drop, density of indigenous communities will increase.

Draft Constitution for the Kat River Valley WUA

Name of Association

1. The name of the Association is **Kat River Valley Water User Association** (hereinafter referred to as "the Association").

Application of the National Water Act of 1998 to the constitution

2. This constitution is subject to Chapter 8 of the National Water Act of 1998 (hereafter referred to as the Act) and Schedule 4 to the Act.

Objects of the Association

3. The objects of the Association are:

- To provide water for the beneficial use of members;
- To monitor and control the abstraction of water from the River and release of water from the Kat Dam;
- To recover costs of managing the water resource from water users;
- To actively care for and manage the health of the Kat River and the Kat Dam.

Principal functions of the Association

4. The principal functions to be performed by the Association in its area of operation are -

[Note: The following are options. Others may be proposed. Choose and number your options.]

- * To prevent water from any water resource being wasted.
- * To protect water resources.
- * To prevent any unlawful water use.
- * To remove or arrange to remove any obstruction unlawfully placed in a watercourse.
- * To prevent any unlawful act likely to reduce the quality of water in any water resource.
- * To exercise general supervision over water resources.
- * To regulate the flow of any watercourse by -
 - clearing its channel;
 - reducing the risk of damage to the land in the event of floods;
 - changing a watercourse back to its previous course where it has been altered through natural causes.
- * To investigate and record -
 - the quantity of water at different levels of flow in a watercourse;
 - the times when; and
 - the places where water may be used by any person entitled to use water from a water resource.
- * To construct, purchase or otherwise acquire, control, operate and maintain waterworks considered to be necessary for -
 - draining land; and
 - supplying water to land for irrigation or other purposes.
- * To supervise and regulate the distribution and use of water from a water resource according to the relevant water use entitlements, by erecting and maintaining devices for -
 - measuring and dividing; or
 - controlling the diversion of the flow of water.

Ancillary functions of Associations

5. (1) The Association may perform functions other than its principal functions only if it is not likely -
- (a) to limit the Association's capacity to perform its principal functions; and
 - (b) to be to the financial prejudice of itself or its members.
- (2) Other functions of the Association may include -
- * Providing management services, training and other support services to -
 - (a) water services institutions; and
 - (b) rural communities.
 - * Providing catchment management services to or on behalf of responsible authorities.

Founding members

6. (1) The founding members of the Association are the members whose names appear in Annexure 1 of this constitution and who have been authorised by the proposed participants to act on their behalf in establishing the Association.
- (2) The founding members will, for purposes of arranging the first election of members of the Management Committee, be considered to be the Management Committee of the Association with powers and duties limited to arranging the election in accordance with this constitution.

Membership of the Association

7. (1) The first members of the Association are the persons who, during the consultation process, indicated their willingness to become members of the Association and whose names appear in Annexure 2 of this constitution.
- (2) Application for new membership of the Association must be addressed to the Management Committee which must, at a meeting of the Committee, consider an application and approve it unless there is good reason to refuse it.
- (3) An association must allow a person to become a member of the Association if directed by the Minister to do so.
- (4) A member may only resign as a member of the Association with the approval of the Management Committee, which may not unreasonably withhold its approval.

Register of members

8. All members must communicate their addresses from time to time to the person acting as secretary of the Association, who must keep a register of the names of members and of their addresses.

Rights of members

9. (1) Membership of the Association does not give any member a right to any of the moneys, property or assets of the Association, but only gives members the privileges of membership, subject to such charges and reasonable restrictions as are imposed by the Management Committee from time to time.
- (2) A member whose application for membership has been approved is bound by the constitution and rules of the Association which are then in force or as they are subsequently amended.

Liability of members

10. The liability of members is limited to the amount of unpaid charges and interest thereon owing by them to the Association.

Qualification of candidates for membership of Management Committee

11. Any member of the Association is, subject to disqualifications contemplated in Schedule 4 to the Act, eligible for election as a member of the Management Committee. If the Association's area of operation is divided into sub-areas, a member will only be

eligible for election as a member of the Management Committee for the sub-area in which that member resides.

Nomination of and voting for members of Management Committee

12. Any person whose name is on the voters list of the Association may nominate candidates for election as members of the Management Committee and may vote at an election of members of the Committee. A person whose name appears on a voters list prepared for a sub-area of the Association's area of operation, will be entitled to nominate candidates and to vote only in elections for that sub-area.

Membership of Management Committee

13. (1) The Management Committee of the Association will consist of 10 members. The area of operation of the Association will be divided into sub-areas as described in Annexure 3 to this constitution. Each area will be represented on the Management Committee on the basis set out in that Annexure.

(2) Membership of the Management Committee will be determined by an election process in which all members whose names are on the Association's voters list may participate.

(3) Members will, subject to the disqualifications contemplated in Schedule 4, be elected for a fixed term of 4 years.

(4) If a vacancy occurs on the Management Committee, the vacancy must be filled according to this item, provided that the member must be elected for a period equal to the remainder of the period for which the member who has vacated the office would otherwise have continued in office.

(5) At least 30 days' notice of an election must be given to all members of the Association.

Appointment of chairperson and deputy chairperson

14. (1) After the election of the Management Committee the members of the Association must elect a chairperson and a deputy chairperson of the Association from amongst the elected members of the Management Committee. The members of the Association may appoint any person to chair the proceedings for that purpose.

(2) The chairperson and deputy chairperson hold office for a period of 12 months from the date of their election and may be re-elected.

(3) When the period of office of a chairperson or deputy chairperson expires, that person will, provided that he or she remains a member of the Association, remain in office until the next meeting of the Management Committee.

(4) A new chairperson and deputy chairperson of the Management Committee will be elected annually. Should any of these offices be vacated before the term expires, the office must be filled immediately according to the procedure set out in this item.

Voter's list

15. (1) The founding members of the Association must select a person to prepare a voters list for the first election of members of the Management Committee. The voters' list must show –

(a) the names of all members included in Annexure 2 to this constitution and, where appropriate, the name of a member's accredited representative;

(b) particulars of each member's entitlement to water use; and

(c) the number of votes a member is entitled to.

(2) If the Association's area of operation is divided into sub-areas, the voters' list must also be divided into subareas and the particulars referred to in subitem (1) must be shown under the respective subareas.

(3) The number of votes will be determined on the following basis -

[Note: The following are options. Others may be proposed. Choose and number your options.]

Option (a)

One vote per entitlement to water use.

Option (b)

A pro-rata number of votes in proportion to the quantity of water authorised under a particular entitlement, compared to the total quantity of water under all of the entitlements registered with the Association. In this calculation all fractions must be rounded off to the next higher figure.

Option (c)

A pro-rata number of votes in proportion to the quantity of water authorised under a particular entitlement, compared to the total quantity of water under all the entitlements registered with the Association. In this calculation-

- (i) all fractions must be rounded off to the next higher figure; and
- (ii) no member will be awarded more than 10 votes.

Option (d)

One vote for every five hectares or part of five hectares of land that can be irrigated in terms of a member's entitlement.

Option (e)

One vote for every five hectares or part of five hectares of land that can be irrigated in terms of a member's entitlement, provided that no member will be awarded more than 10 votes.

(4) If the entitlement to use water is not in the name of a natural person, the holder must nominate an accredited representative whose name must appear on the voters' list and who may exercise the vote.

(5) If the entitlement is in the name of two or more persons they must designate one of their numbers to represent them and that person's name must appear on the voters' list and he or she may exercise the vote.

(6) The voters' list must annually be revised by the Management Committee and also whenever there is an amendment to the Association's area of operation.

Appointment of employees

16. (1) The Management Committee may employ such persons as it considers necessary to perform the Association's functions under this constitution.

(2) The appointment of employees or any change in their conditions of service must be approved by resolution of the Management Committee.

(3) All employees of the Association will remain in office despite any change in the composition and membership of the Management Committee.

Raising of loans

17. (1) The Management Committee may raise by way of loans, including bank overdrafts, any funds required by it for the purpose of carrying out any of its functions under this constitution or the Act.

(2) Whenever the Management Committee proposes to raise a loan, it must give notice in writing of its intention, setting out details of the proposal. The notice must be given to every member of the Association not less than 21 days before the date of the meeting of the Committee at which the proposal will be considered.

(3) No loan may be raised without a resolution of the Management Committee passed at a meeting at which not less than two-thirds of the members of the Committee are present.

Charges and the recovery of charges

18. (1) For the purpose of defraying any expenditure that the Management Committee has lawfully incurred or may lawfully incur in carrying out its functions and duties it may annually assess charges on members according to the pricing strategy for water use set by the Minister.

(2) The Management Committee may recover the charges assessed from either -

- (a) the owners of the land concerned; or
- (b) any person to whom water is supplied on the land.

(3) Whenever the Management Committee has assessed a charge, the Committee must prepare an assessment roll setting forth -

- (a) the name of each member liable to pay charges;
- (b) a description of the piece of land, which may be a specially delineated area, in respect of which the charge is assessed;
- (c) the quantity of water or abstraction time period to which the member is entitled;

- (d) the amount of the charge assessed;
 - (e) the date or dates on which payment is due and the amount due on each date; and
 - (f) the rate of interest payable on non-payment and the effective date of interest.
- (4) A copy of the assessment roll must lie open for inspection in the office of the Association at all reasonable times by any member of the Association.

Annual Report

19. The Management Committee must, within three months after the end of the Association's financial year, convene a general meeting of members and must at the meeting -

- (i) table an audited financial statement of the Association's accounts for the preceding financial year,
 - including full particulars of any remuneration paid by the Association to members of the Management Committee and employees of the Association; and
- (ii) give an account to the members of its activities during the year.

Winding up

20. (1) The Association may be dissolved by a resolution passed at a special general meeting held for that purpose, provided that -

- (i) the resolution is passed by a majority of two-thirds of the members present and entitled to vote at the meeting; and
- (ii) the resolution is confirmed at a further special general meeting held not less than four weeks after the preceding special general meeting by a majority vote of members entitled to vote thereon.

(2) A meeting passing a resolution referred to in subitem (1)(i) of this constitution may also pass resolutions by a majority vote for -

- (a) the appointment of a liquidator; and
- (b) the disposal of surplus funds and assets of the Association after winding up and after the payment of all debts and obligations of the Association, provided that any surplus assets may only be transferred to an Association or institution with objects similar to those of the Association, or to the Minister.

LIST OF FOUNDING MEMBERS

ANNEXURE 1

(In alphabetical order)

LIST OF MEMBERS

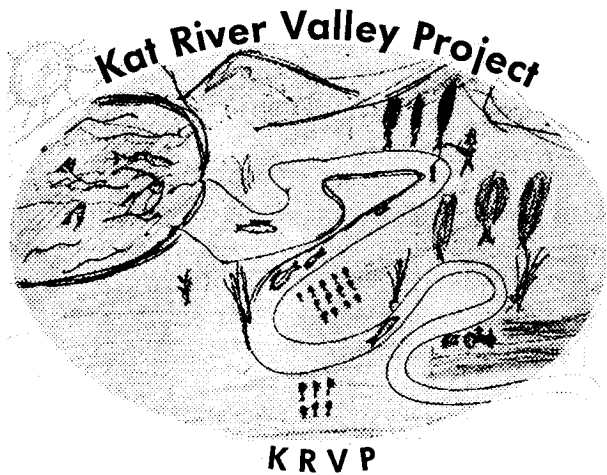
ANNEXURE 2

(In alphabetical order)

DESCRIPTION OF SUB-AREAS AND REPRESENTATION IN MANAGEMENT COMMITTEE

APPENDIX 4 BOX 3	2000
THE BROCHURE AND EMBLEM	
The community participants of Fairbairn and Hertzog contributed to the conceptual development of the brochure and drew the emblem.	

Kat River Valley Project



What is Integrated Catchment Management?

Integrated means - all people (residents, government, local government) and the environment. Environment and people are equally important.

Catchment means - the area within which water moves, and the land used by humans which impacts on the water. Water includes: the rain, the clouds, the ground water, coastal water, and estuaries.

The Managers - YOU, your neighbours, local government, national government all working together towards a management partnership.



Why Strive for Integrated Catchment Management?



Our lives, children's lives, land, water, animals, trees, and other natural resources are all under threat from the pressures we place on them. The resulting environmental problems, such as soil erosion, pollution, landslides, hunger, poor farming productivity, anger and frustration have negatively effected all the people along the river.

It is important for us to take responsibility for these issues in our own River Catchment and work together. A Catchment Management Forum is about coordinating community and government efforts at the catchment level so that we can have productive land, cleaner water, a sustainable future for ourselves and for our children, feel empowerment, and gain a voice.



About the Fairbairn and Hertzog Catchment Residents

The Development and Coordination of Catchment Forums in the Kat River Valley is a local initiative of the Fairbairn and Hertzog communities to improve communication between all people who live along the Kat River. They identified that there is no structure through which consultation and negotiation can take place between the Fairbairn and Hertzog villagers, downstream dwellers and the dam managers. The Fairbairn and



Hertzog people ask YOU to participate openly on this project and work towards effective Catchment Management solutions.

The Aims of ...

1. Fairbairn and Hertzog



The Fairbairn and Hertzog people's vision is:

- ⊗ To manage catchment resources wisely to ensure sustainable income.
- ⊗ To ensure that people in the catchment do not exploit the environment.
- ⊗ To encourage catchment dwellers to learn to communicate and enter into negotiation with each other.
- ⊗ To identify catchment management as a structure that can facilitate other development needs.

2. The Project



- ⊗ To get to know YOU, and your Catchment Management concerns
- ⊗ To facilitate the development and co-ordination of a Catchment Management Forum through awareness building, learning, and empowerment.
- ⊗ To encourage all the Kat River people to take a role in the management of their catchment.
- ⊗ To identify differences of interest and priorities among the different users, and to communicate these issues to other catchment users.
- ⊗ To transfer the policy, principles and goals of 'Integrated Catchment Management' to the grassroots level.
- ⊗ To bridge the gaps between the Department of Water Affairs and Forestry, and the Kat River communities, and amongst the Kat River communities themselves.



Current Project Staff

☉ The Fairbairn and Hertzog community.

☉ Jerry Ntsebeza, Grassroots Reseach Assistant.

Facilitators



- ☉ Nicole Motteux, Research Officer, Rhodes University, Geography Department.
- ☉ Prof Kate Rowntree, Project Leader, Rhodes University, Geography Department.
- ☉ Dr Etienne Nel, Project Advisor, Rhodes University, Geography Department.
- ☉ Molly-Anne Nqweniso, Research Assistant, Rhodes University, Geography Department.

State Government Agencies

☉ Dr Heather McKay, Project Advisor on national water policy implementation and application of the National Water Law, Institute for Water Quality Studies (IWQS).



- ☉ Dr Tally Palmer, Project Advisor on national water policy implementation and application of the National Water Law, Rhodes University, Institute for Water Research (IWR).
- ☉ Mr Bill Rowlston, Project Advisor on national water policy implementation and application of the National Water Law, Department of Water Affairs and Forestry (DWAf).
- ☉ Mr Hugo Maaren, Research Manager, Water Research Commission (WRC).

Funding Agency

☉ Water Research Commission (WRC), Pretoria.



What can I get from this Project?

☉ An opportunity to communicate effectively with other people in the catchment.



☉ An opportunity to tell local and state Government how you feel about environmental related issues in your area.

☉ A guide to understanding water policies and plans that affect you.

☉ Environmental education in catchment issues.

What Are the Project Staff Doing?

☉ Meeting with all stakeholders.

☉ Identifying catchment needs and benefits through a survey and workshops.

☉ Co-ordinating the activities among catchment dwellers themselves, and Government.

☉ Encouraging communication between catchment dwellers themselves, and Government.

☉ To encourage consensus between catchment dwellers themselves, and Government.

☉ To transfer knowledge of the National Water Law to grassroots level.



How Will 'My' Voice Impact on the Project?

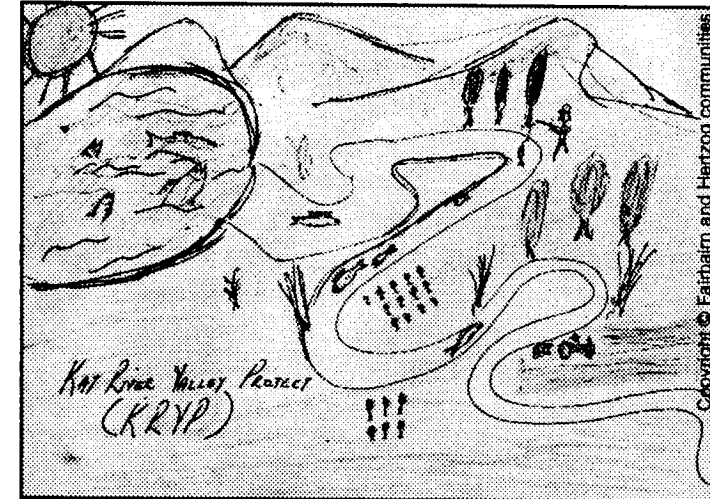


☉ Your views and beliefs can influence how the project is undertaken.

☉ Your skills, knowledge and needs can be incorporated within the project to encourage improved catchment management.

☉ Your 'voice' can help Government to know how to implement catchment management.

☉ Your knowledge can inform Government of local catchment management issues and concerns.



This picture drawn by the Fairbain and Hertzog communities represents the *Kat River Valley Project*.



Design and layout by Angie Lazaro

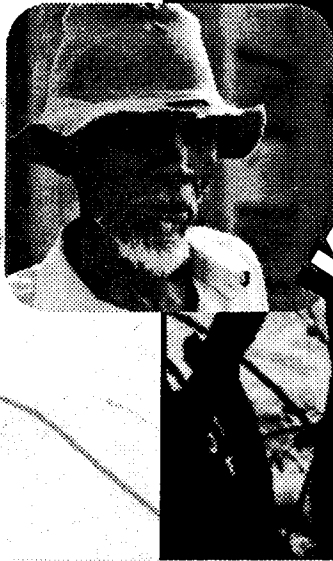
THE ENGLISH COPY OF THE NEWSLETTER

The Journalism students interviewed and recorded stories of the different lived realities and needs of the diverse Kat River Valley stakeholders with the assistance of grassroots team.

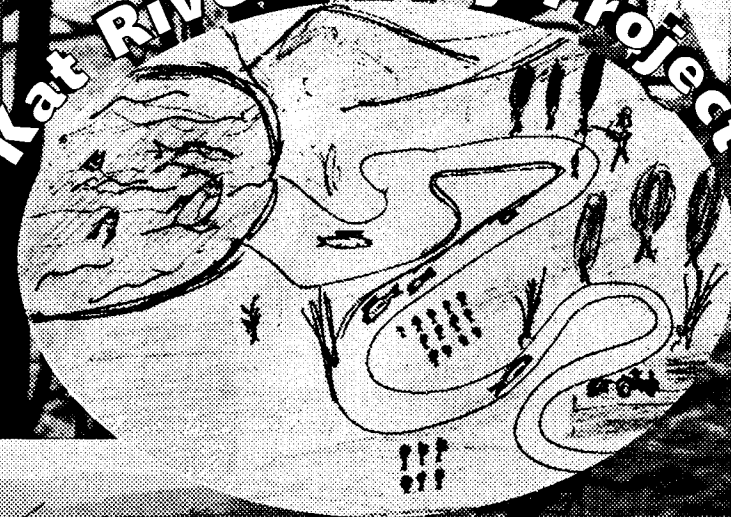
Sharing our river catchment

Vol.1 No. 1

June 1999



Kat River Valley Project



K R V P



Editorial

by Vivienne Hambly

Whether we know it or not, the Kat River is a vital resource in our lives. Without it, we would not only be waterless, but without many of its by-products, like the fish which swim within it, the reeds which grow along its banks and the building materials which are gleaned from its bed.

However, caring for the river and ensuring that it is in a healthy state for the generations that follow us, is more than just about seeing the river in isolation, as a single entity. The river is linked to everything else around it, and so caring for the river is also about caring for the land, or the catchment area, which surrounds it. And caring for this land involves caring for the people who use it.

One of the fundamental processes within this caring is communication. If we do not know what those around us are using the river for, then it is impossible to know whether what we are doing with the river affects others. This first edition of the newsletter for the Kat River catchment management project aims at facilitating this communication. In it, you will find profiles of some of the many different users of the river, interviews with scientists who have done tests on it, photographs of people and places you might recognise and a few tips on how to make sure that the water you drink is clean.

We hope that you enjoy reading this edition, just as we have enjoyed compiling it. We also hope it will be able to continue and grow from strength to strength. To all those who gave us interviews and shared part of your life with us, thank you.

Catchment Management in the Kat

by Lisa Witepski

Our lives, our children's lives, land, water, trees and other natural resources are all under threat from the pressures we place on them. The resulting environmental problems, such as soil erosion, pollution, landslides, hunger, poor farming productivity, anger and frustration have negatively affected all the people along the river.

We can never take our environment for granted. As the above shows, we face many problems, and we cannot overcome them unless we all work together. This is the goal of the Kat River Valley Project.

Nicole Motteux started this project in 1996, and, together with the local villagers, is working to improve water management in the Kat River area.

The project aims at giving the people in the Kat River Valley an opportunity to tell local and state Government how they feel about environmental related issues in their area, and most importantly, teaches them how water policies and plans affect them personally.

Using workshops, members of the community are able to identify problems in the environment which affect them.

Without the Kat River communities involvement, the project cannot be a success. Villagers are encouraged to use their voices, so that their skills, knowledge and needs can be used in the project. Their views and beliefs will directly influence the running of the project, while their knowledge can inform government of the

local catchment management issues and concerns.

Working together, we can learn about our environment, and teach each other. There is much we can learn from nature - perhaps it is time we started giving back to the land, instead of taking.

The community recently identified their vision for the Kat River Project as the need:

- 1** To manage catchment resources wisely to ensure sustainable income,
- 2** To ensure that people in the catchment do not exploit the environment,
- 3** To encourage catchment dwellers to learn to communicate and enter into negotiation with each other,
- 4** To identify catchment management as a structure that can facilitate other development needs.
- 5** For the community to use the workshops to jointly find solutions to their problems.

War on water waste

by Lisa Witepski

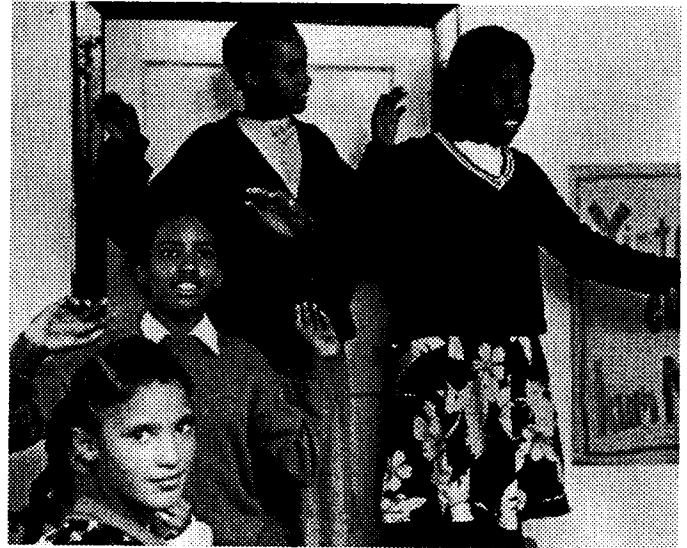
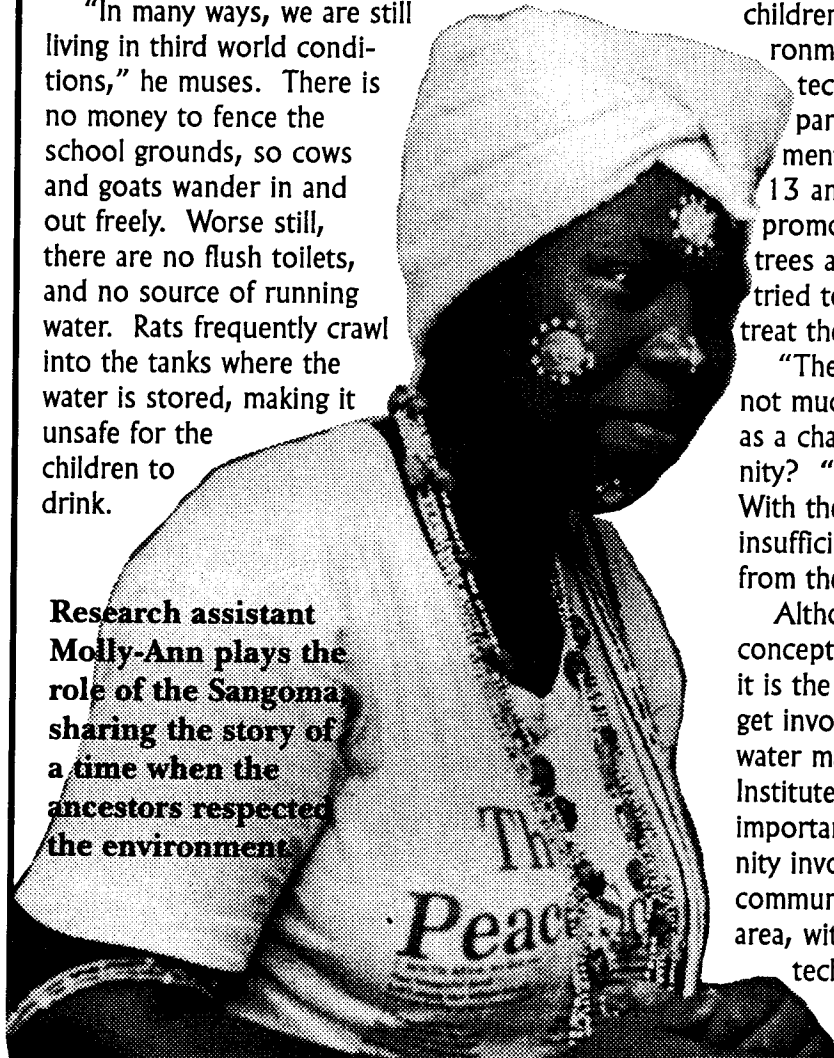
Anthony Venter is a tall man. Standing outside a classroom at Hertzog Primary School, where he has been headmaster for seven years, the children looked like dolls as they lined up behind him. Although it is not yet midday, it is already hot; however Mr Venter looks composed and dignified in a dark suit and tie. Extending a big hand for me to shake, he apologises that we cannot talk in his office, as it was recently damaged in a fire. Instead, he leads me to classroom.

Inside, colourful posters illustrating the alphabet and the four cardinal points are stuck to the walls. Rows of old-fashioned desks, some strewn with a litter of pens and papers, face the front of the class.

However, there is no sign of an overhead projector, no lights, no teaching equipment other than a blackboard. It cannot be easy teaching in an area where there is no electricity, but as Mr Venter points out, Hertzog Primary has other, more serious problems.

"In many ways, we are still living in third world conditions," he muses. There is no money to fence the school grounds, so cows and goats wander in and out freely. Worse still, there are no flush toilets, and no source of running water. Rats frequently crawl into the tanks where the water is stored, making it unsafe for the children to drink.

Research assistant Molly-Ann plays the role of the Sangoma, sharing the story of a time when the ancestors respected the environment.



The children of Hertzog Primary have been keen to get involved in the Catchment Management Project.

Perhaps these hardships have served to make the children at Hertzog Primary more aware of their environment, and more conscious of the need to protect their scarce resources. Two years ago, as part of the Kat River Valley catchment management project, six of the children, aged between 13 and 17 years, staged a play which was aimed at promoting water conservation. Acting as water, trees and other elements of nature, the children tried to teach their community members that if they treat their environment well, they will be rewarded.

"The children were eager to get involved. Because not much happens around here, they see everything as a challenge." And the response from the community? "The community's reaction was wonderful. With their help, we have been able to replace the old, insufficient water tanks with a better supply piped from the river."

Although catchment management is not a new concept, the Kat River Project is fairly innovative, as it is the first time the community has been asked to get involved in making important decisions regarding water management. Dr Heather McKay, at the Institute for Water Quality Studies, says this is important, as it was previously thought that community involvement would be difficult to organise. Now, communities can feel that they do have a voice in this area, without being patronised because they lack technological knowledge.

continued on page 12...

Environmental Education at the Fairbairn School

by Abbey Warner

The children at Fairbairn School were treated to a new and fun process of learning. An educational play, by drama students from Rhodes University, was presented to them last month.

Oliver Browski and his fellow drama friends from Rhodes University approached Nicole Motteaux from the Geography Department, to undertake an environmental drama in a rural school.

Nicole gained permission from the Fairbairn School teachers and members of Fairbairn community. A date was set. After due planning it was decided that the drama would involve 60 school children and focus on bringing out the children's own understanding of the condition of the river.

The drama students arrived at the school plastered with white face paint. The children giggled at the sight.

An initial play, performed by the drama group, illuminated

how managed and mismanaged environments impact on the livelihood of people as well as on the environment.

This play was taken further as the children were encouraged to make their own plays about their environment. The drama students facilitated the development of the children's play, teaching them the skills of mime, how to build cows, birds and so on. Nicole, an observer, said that she "was filled with great bouts of laughter".

Action was seen in all corners of the school. Children took on the role of cows, birds and adults. "It was great. Lots of action, laughter and joy was expressed by the school children", said Nicole.

After the children completed their own plays and showed each other, the Rhodes drama group then performed a drama that introduced the idea that water

quality can be

“

Children took on the roles of cows, birds and adults.

”

assessed though the insects.

Insects? Yes, said a nearby teacher. A drama student then played the role of a scientist dressed in boots and holding a net and went down to the river.

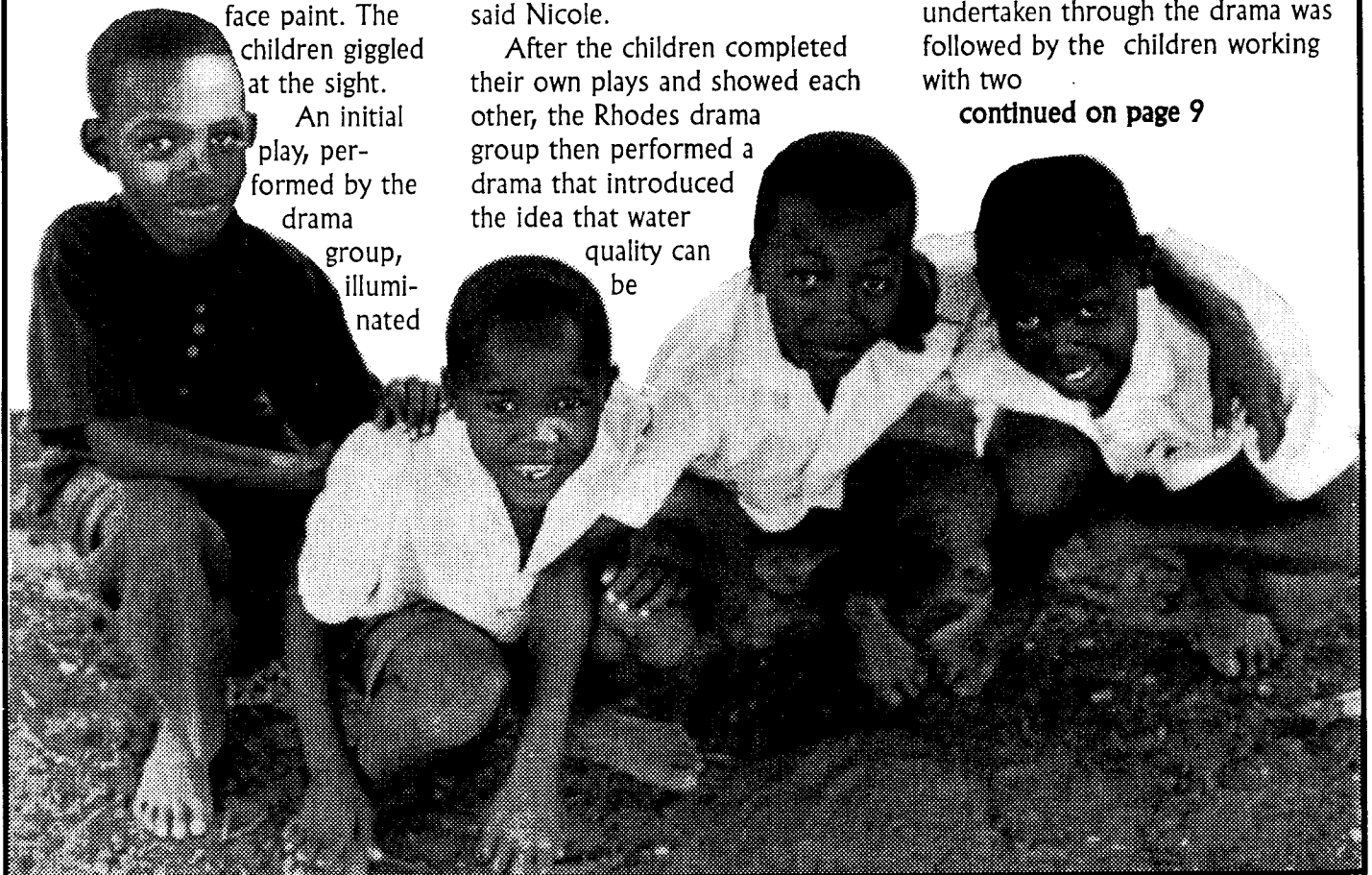
Muttering about the need to check the health of the river, he started to net the insects. In

his first scoop he indicated a variety of insects which were identified using cards which classified the insects into two different colour categories.

"This insect is good, it is on the green card. See. This one is bad (red card)". After, identifying his catch, he re-scooped and re-identified the insects in his second catch.

The environmental education undertaken through the drama was followed by the children working with two

continued on page 9



Enterprising Moves



by Vivienne Hambly

The Riverside harvesting shed is a few kilometres outside Fort Beaufort. Owned and run by Riverside Enterprises, the shed began when changes within the existing marketing structure led them to look for a different way to sell their fruit.

After considering all the available options, the enterprise then struck on the idea of building their own shed and marketing their fruit themselves. The move gives them greater marketing freedom and allows for any further developments which they might wish to undertake.

The shed first started packing fruit in April 1998, with a labour force of 70. Due to greater crop production, this, their second year saw the labour force increase to more than 100. The enterprise expects to employ more people in the next few years as new plantings are harvested.

Of concern to the Riverside

Enterprise is the effect that the effluent from their packing sheds will have on the catchment of the Kat River. According to Riverside farmer, Jonathan Roberts, foreign consumers are becoming more and more picky about the conditions under which the fruit they buy is grown: "Environmental concerns and an awareness of the consumer are growing. These concerns will very soon govern the value of ones product and it is our wish to meet these concerns."

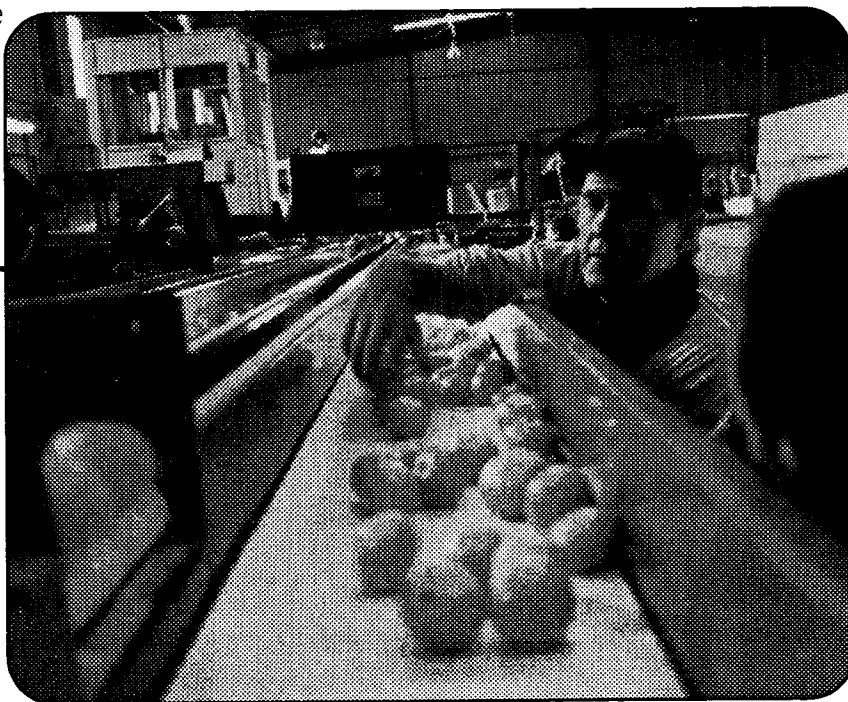
In an attempt to ensure that their packing shed harms the catchment as little as possible, the enterprise has developed an environmental

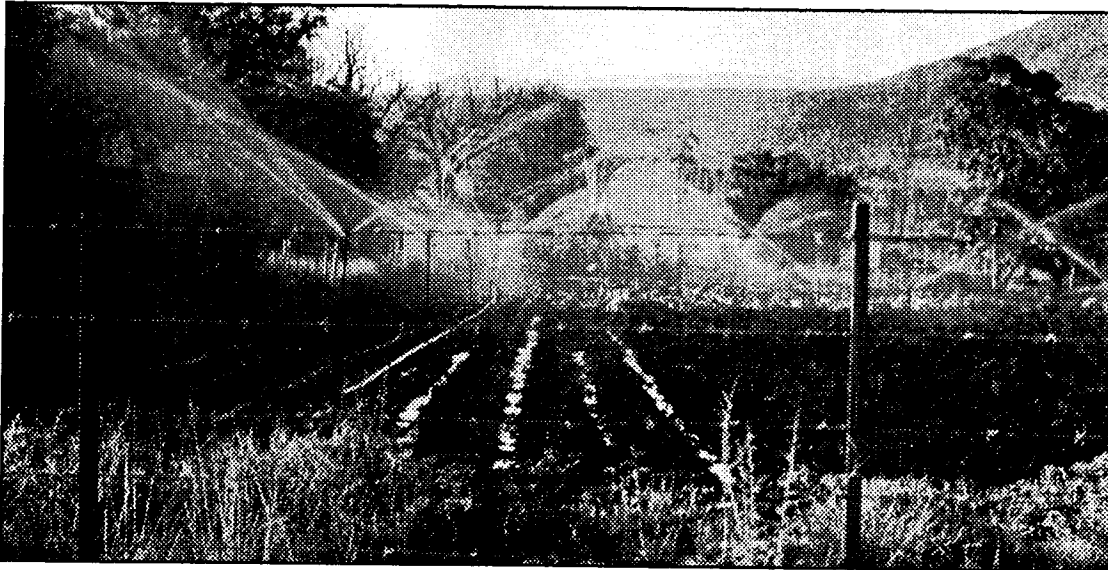
Foreign consumers are becoming more and more picky about the conditions under which the fruit they buy is grown...and it is our wish to meet these concerns.

policy which outlines the environmental objectives of the enterprise. Amongst other aims, the policy states that the enterprise shall "support research on the environmental impacts of raw materials, products, emissions and wastes associated with the production process."

They have also asked that scientists from Rhodes University, who are studying the Kat River catchment area assist them in their environmental planning.

Riverside Enterprise is concerned that waste from their packing sheds does not reach the river, and have asked scientists to assist them in developing an environmental policy.





Water from the Kat River forms the life blood of the local farming community, benefiting everyone who resides on its banks.

Doing Things... the Citrus Way

by Vivienne Hambly

Gabriel Maqona, the wife of Chief Maqona, lives with her family on the farm Gonzana, about 20km outside of Fort Beaufort. The Maqona's have been farming citrus in this area since 1994 and before this, they farmed cattle near Alice. They have eight children, most of whom have moved away from the Mpofo district. However, one of Maqona's sons lives with them and lends a hand in looking after the farm.

The last few years on Gonzana haven't been easy ones for the Maqonas. "We used to know what to plant when. Now it's difficult, especially with this El Nino," she says and describes how the changing weather patterns have affected their crop production. "Hail is a big problem. It damages the outside of the fruit, but leaves the inside alone. Most of our fruit is for export and when the fruit doesn't look good, we can't sell it." When it is not citrus season, they supplement their income by farming with chickens and pigs.

But while the hail and seasonal changes might be a problem, Chieftaincy Maqona says there has never been much hassle with water supply in their area. She knows the land intimately and explains in detail how water is transferred from the river at the bottom of the farm, through a series of furrows

into two storage dams. Here water is either treated for household use, or left in the holding tank, to be used for general watering. "In the orchards we use microjets. This is more efficient as we can monitor more accurately the amount of water we need. The water here is good. We never run out of it. At the bridge where you cross, is a weir and when it is low we have to use engines to pump it, but I have not seen it really dry."

“ Water is a really important resource and we cannot live without it. Once you have water you have to make sure you look after it. ”

The farm has water rights for 52 hectares, but they only use water for about 20 hectares and their water bill for the last six months amounted to R1025. Their additional water rights allow them to provide water to the small community which they "inherited" with the farm when they bought it. "We also give them water, but we don't charge for it. We can't, they are all unemployed. They used to work for ULIMCO (a government parastatal) and then ULIMCO closed so they have no money."

Chieftaincy Maqona is well aware of the fragility of the Kat River catchment area and their dependence on water: "We need to look after the water. I think if we can sit down as members of the Kat River Valley and work out how to conserve water, it is a good thing. Water is a really important resource and we cannot live without it. Once you have water you have to make sure you look after it."

Hopeful for Help

by Abbey Warner

Zamukuphila, the women's farming initiative, situated in Upsher, has had a bad crop the last two years. The need for a tractor as well as a more reliable method of water supply, from the Kat River, has been hindering the success of the project, not to mention the hailstorm that destroyed the crop last year.

ULIMCOR (a government parastatal) and the TRC (Transitional

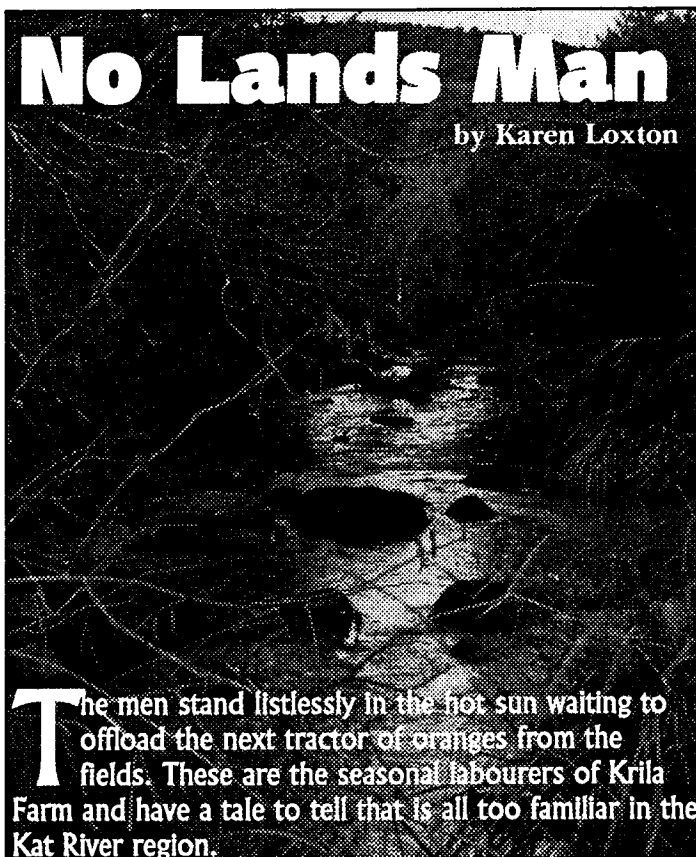
Rural Council) in the area, have been the projects' hope for external aid but due to limited funds have been unable to offer support. Both are aware of the initiative and although the women approached the TRC to request the use of a tractor, the requests have not been met.

The initiative was started by eight women who sell the vegetables in order to buy food for their

families and to ensure an education for their children.

The women, who share a good working relationship, drew up a formal policy at the onset of the project and elected a Chair person and Finance person to aid the smooth running of the project.

The group hopes to expand and diversify in the future whilst concentrating on those crops which do well.



No Lands Man

by Karen Loxton

The men stand listlessly in the hot sun waiting to offload the next tractor of oranges from the fields. These are the seasonal labourers of Krila Farm and have a tale to tell that is all too familiar in the Kat River region.

They are members of the nearly 100 families who live on Krila. For three months they have work on the farm owned by Mr Daniel Solly. The rest of the year the lucky ones rely on pensions and social grants. These families are the leftovers, the forgotten, caught up in the turmoil of changing systems, they never seem to benefit from any of them.

Generation after generation has lived on this land going back to the time even before the white farmers claimed the area as their own. Now with the privatisation of the farms the farmers can no longer afford to support those who stay on the farm other than a few extra casual labourers in the picking season. But the people who have spent their entire lives here have

Reaping reeds

by Abbey Warner

Sedimentation in the Kat River has resulted in a reed problem. The Upsher community living aside the Kat River have noted this increase of reed growth but had not noticed any increase in the sediment nor a change in the water flows. The Upsher respondent perceived the dry winter reeds as a problem resulting in the river bank fires. Safety is also perceived as a problem for the women are afraid to go down to the river - the reeds are 'the house of criminals'. People from further upstream have, however, been harvesting the reeds along the bank in Upsher and using the resource for the making of baskets.

nowhere else to go. With new rural laws the farmers have no rights to remove them.

Mr Willington Stuurman is one of two permanent workers that water and prune the orange trees. He tells us the yield is low this year because the electricity to the farm was cut off for two months when the farmer could not pay. This left the oranges in the middle of the delicate ripening process without water because electricity pumps are needed to pump water. The low yield means less money for the farmer and ultimately less money for the employment of casuals.

The oranges are not the only things to suffer from a shortage of water. Before the independence of the Ciskei, the people got water from the government, but now there is not even enough to grow small gardens to supplement their incomes - or their diets. The shortage of water for domestic use often sees them walking to the stream to fetch what they can. When the orange season is over the times will get even harder.

Operation Fort Restore

by Abbey Warner

As a means of bringing money into the area, certain members of the community have been actively involved in a local initiative project. In the Kat River Valley community lies an old fort that dates back to a colonial war at the start of the 19th century. The fort was captured by the Xhosa tribes and thus, to represent this time in history, the fort is in the process of being restored.

Mr Mkonta, in charge of this project said the reason that the Fort was being restored was four fold:

1. To attract tourists (since the fort actually belonged to the British).
2. It represented the will of the people to fight against oppression.
3. To honour those who died there as well as the women and children who lived there.

4. To restore the pride of the people. Those involved in the project approached Mr Web from the National Monuments and Heritage Council with their proposition. He was willing to help, and finally got a sum of R50 000 together for the project. In total 24 people were employed, both men and women and the scheme was under way.

Although the project is still in a primary stage, those involved with the project are hoping to install toilets for the tourists as well as a cafeteria. At the moment, they are relying on Mr Web and the Fort Beaufort Museum to attract the tourists, however they will produce brochures and put up road signs in the future.

Philani is what the Fort shall be named meaning 'do well' or 'to cope'.

More Trees, Less Plastic

by Vivienne Hambly

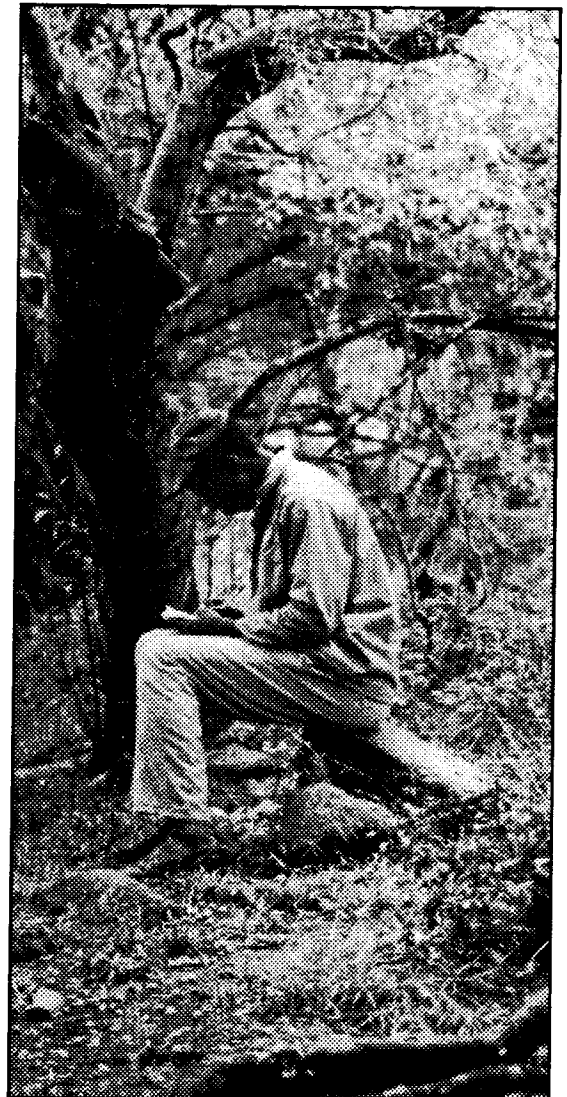
Like many other people, Mbuyisell Wilson Selani has lived in the Kat River Valley all his life. He knows the area, it's people and the river which runs through it very well and remembers a time when there were many trees in the Hertzog area where he lives. Now Mr Selani believes that people have to start looking after the environment if they want it to be in a good condition for their children and their children's children.

"This project which Nicole is doing is very useful for us, because before she came, we didn't know anything about the river or how to look after it. Now we know how to keep the rivers clean, how to keep the place where you live clean, not full of

plastic." Mr Selani says that things have been better since he has learnt about looking after the river: "That is not to say I was sick before, now I just feel healthier." His cows are feeling healthier too: "We used to see the cows who had eaten the plastic die - people used to go shopping and throw the plastic where the cows could eat it. Now, when I see plastic around, when I go to church, I pick it up."

Tired of speaking to people who refuse to listen to him, and tired of seeing the consequences of an unhealthy environment, Mr Selani wishes more members of the Hertzog community would get involved with the Kat River catchment management project. "It's better to put things into action, rather than just saying words."

““ People have to start looking after the environment if they want it to be in a good condition for their children and their children's children. ””



The Kat River catchment management project has helped residents to a cleaner, healthier environment.

High on a Hill

by Vivienne Hambly

Maxim and Diana Litye are an elderly couple who have been living with their extended family in the Amherst area for the last 20 years. They both depend on their government pensions for survival, although they earn extra income during the citrus season and sometimes sell Acacia or Umunga wood for R2 a bundle.

They struggle to obtain water for their daily requirements, as they live high up on an isolated hill on someone else's farm. Their nearest water supply is several kilometres away in the dam at Seymour. "It

would be good if the government put in electric pumps to bring the water to us. The furrows don't work because we live on a hill," Mr Litye says. They know the pumps will probably never be installed. "Some officials from the government have come to talk to us about our problems, but there have never been any changes where we live."

The Lityes believe that the stretch of the river near their homestead is in a fairly good condition. Mr Litye explains: "We are careful to collect only dry wood. We make sure we do not use too much of it."



The Lityes sell wood to obtain extra income. However they are careful to collect only dry wood in order to keep the river near their homestead in good condition.

Environmental Education at the Fairbairn School (continued from page 4)

scientists from Rhodes University at the river. The school children were encouraged to take on the role of the scientist and use the knowledge that they had gained from the plays in assessing the river. Big boots, nets, trays, and worksheets displaying insects were given to the school children. The children became directly involved in the sampling and identification of insects with the help of the scientist. Various sites in the river were explored.

While the children and the scientists were assessing the water through identifying the insects Prof Kate Rowntree from Rhodes University assessed the water quality.

Once the wet, muddy children, with the help of the teachers, had fully explored the concept of determining the water quality through insects, Kate fed back her results. She explained that while they had been looking at the insects "I have been looking at the chemicals". The water assessment illustrated that water was fine to drink, although the nitrates could cause babies to get sick.

The following morning Mrs Emily Dlakavu, a teacher at Fairbairn School, said the children were enthusiastic and enjoyed the show so much so that the children re-presented the play and what they had learnt from it to their teachers.

The drama was an overall success, said Mrs Dlakavu. It was a day that both she and the students would not forget.

The drive behind the flow

by Lisa Witepski



Nicole is the force behind the project

Nicole Motteux's small, cramped office reminds me of an Olde Curiosity Shoppe. Bright ethnic batiks hang from the walls, papers and books cover every imaginable surface, and her bookshelves are crammed with files.

She settles into a swivelling chair, and starts telling me about her visits to the villages of Hertzog and Fairbairn, an area she travels to and from regularly. Here, with the help of the local villagers, she conducts research on catchment management. Together, they work to combat the problems that South Africa's dry, hot climate presents them with, and to align the Kat River Valley to the new water laws. The aim of this project is to blend experts' scientific knowledge with the traditional knowledge of the local farmers, to work towards a sustainable environmental management. In 1996, Nicole Motteux, Kate Rowntree, Etienne Nel (Geography Department, Rhodes University), the local villagers, Hugo Maaren (Water Research Commission) initiated a joint working project to encourage improved water management in the Kat River area.

“A key part of the project, in Nicole's eyes, is bridging communication gaps between communities.”

So, how did it all start?

Having grown up on a farm in the Vumba Mountains, an area in eastern Zimbabwe, Nicole has always had an interest in nature. Her childhood home was surrounded by forests and waterfalls, which encouraged her to spend her later life learning more about the environment.

Discovering anthropology and geography at university allowed Nicole to follow her dream of studying people and the environment, and learning how they interact with their natural surroundings. This interest in anthropology and geography served her well when she started working in the Ciskei in 1994, focusing on understanding people in the context of their environment.

Through such work, Nicole has come to see the value of moving from a focus on pure research, to encourage active involvement by using a variety of methods to help her research, trying at all stages to involve the villagers in the process.

To help her reach this aim, she uses surveys, drawings and drama workshops. Taking such a multimedia approach encourages the people in the community to share their local knowledge. This means that while Nicole gives the villagers any help they need, they remain in charge of the project, and their input is very important.

A core theme that arises from this work is the need to share the knowledge gained in the Kat River Valley with other communities, where it will benefit

more people. Participating in conferences and national workshops is one of the ways that Nicole is able to spread her knowledge.

An example of this is the conference Nicole recently attended in Australia. Apart from learning about catchment management in this country, she was also able to establish good ties with people involved in similar projects in Australia, ensuring their future input.

A key part of the project, in Nicole's eyes, is bridging communication gaps between communities. One of its aims is for the villagers to be able to exchange ideas, not only amongst themselves, but also amongst other communities and even the government. Honesty and integrity are therefore an important part of the catchment management process.

Also, it is important that people take an active stance, learning how their environment works and what their role in it should be.

Nicole's journey of learning, which she shares with the communities of the Kat River Valley, is just starting. “We are at the beginning of a winding road that will take us many places.”

Already, the Kat River Valley Project has made a vast difference to the lives of many people, and will continue to do so.

I leave the 'Curiosity Shoppe' feeling a great respect for the people involved in this important work, who are giving so much to their environment.

Building bridges

by Lisa Witepski

In 1997 members of the Fairbairn community met at a workshop, to discuss some of the problems facing them. Occasional unexpected flooding of the Kat River was making farming difficult, and was also the cause of transport inconveniences. The community also identified a sediment problem, which was caused by local catchment erosion, and was blocking the culverts under the causeway. The solution? To build a new, higher bridge.

“Unfortunately, the Public Works Department has faced budget cuts, which is an obstacle to building the bridge. Because of this, the community are appealing to other sources for funds.”

The next step was to write a letter to the department of Public Works, appealing to them for funds. Mr John Ross, from the Department, contacted the community, to negotiate a way to solve this problem. “My role is to provide a long term solution to the flooding, and to prepare a cost estimate and sketch plans,” Mr Ross explains.

Unfortunately, the Public Works Department has faced budget cuts, which is an obstacle to building the bridge. Because of this, the community is appealing to other sources for funds. Mr Ross identifies the involvement of the Rhodes University Geography Department as a strength in this regard. “Because the Public Works Department, in its own right, is unable to attract donor funding for isolated road/ bridge projects, this project could otherwise only have been undertaken by the National Public Works Programme,

Jerry - a Fairbairn resident looks to the future

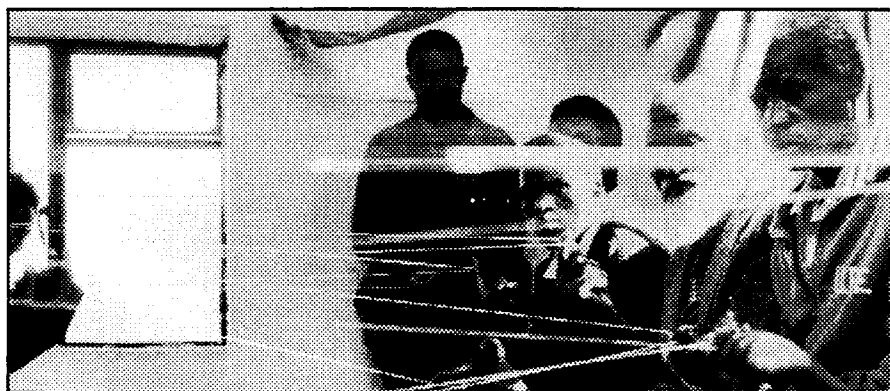


who generally confine their

efforts to non-proclaimed roads.” Should adequate funding be found, the challenge remains to ensure a quality and cost effective installation. “This could best be achieved by effective tasking, with clear specifications and accepted monitoring mechanisms, and an experienced and resourceful contractor. Effective long term catchment management, to control erosion and subsequent siltation, will be necessary to ensure the new structure works properly,” says Mr Ross.

One of the benefits of this projects is that, because Fairbairn is a close-knit community, dedicated to self improvement, there is a good chance of finding donor funding

Good luck to Fairbairn, in finding donor funding!



In a workshop, the participants made a web, each holding a piece of string. When one person let go of the string, the whole web collapsed. This collaboration is the concept behind catchment management.

War on water waste (continued from page 3)

Because most interaction with the community has been conducted with the aid of an interpreter, the villagers of Hertzog and Fairbairn have not lost the feeling they "own" the project, and have been given a sense of power.

An important facet of this project is that it has examined the community's cultural and social values. Dr McKay feels that this development can further catchment management, as people's values influence how they view, and use, their resources. For example, Nicole Motteux, who works for the Kat River Project, discovered that many people believe their ancestors came from the river. Because of this, protecting water is important to them. Dr McKay is enthusiastic that this model could serve as a model for government interaction with rural communities. "Obviously, what we have learnt here may not be applicable to all communities, but we have seen that it does work in the rural areas." Ultimately, Dr McKay hopes that communities will become developed in this area to the extent that they will be able to start their own formal associations to consult with the government about making water laws. Facilitators, such as Nicole Motteux, should then be able to step aside.

Fairbairn and Hertzog are not the only communities to benefit from the Kat River Project. Surrounding towns, like Fort Beaufort, rely on the Kat River for water. "If the river were to dry up, 70 000 people would find themselves with nothing to drink, wash with, or feed their livestock. We have no alternative water source", says Mr Botha, assistant clerk at the municipality of Fort Beaufort. "The community needs to be educated about why water conservation is so important. Sometimes, people open taps and bind them with wire so that they won't close, to ensure a constant supply of water for their cows and goats. They don't realise why they shouldn't be wasting this precious resource." This is the role of the Kat River Project - to ensure that the nearby towns have a constant supply of fresh water.

"Water is life - save water," has become a cliché and so does not stop us from ignoring that dripping tap, or throwing our litter into rivers. Perhaps it is time to consider how important water is to us, and to treat it with respect. The farmers of Hertzog and Fairbairn have no choice - their water truly is their lives, and the Kat River Project is helping them make the most of it.

sharing our river catchment

Publisher

Nicole Motteux

Writers

Vivienne Hambly

Lisa Witepski

Abbey Warner

Karen Loxton

Designers

Vincent Truter

Laila Feyt

Heidi Edelmuller

Jane Muggleston

Final design and editing

Angie Lázaro

Photography

Angie Lázaro

Cover logo

Fairbairn and Hertzog communities

Xhosa translation

Monde Ntshudu

Newsletter co-ordinators

Brian Garman

Mary-Lyn Mather

Nicole Motteux

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Hugo Maaren

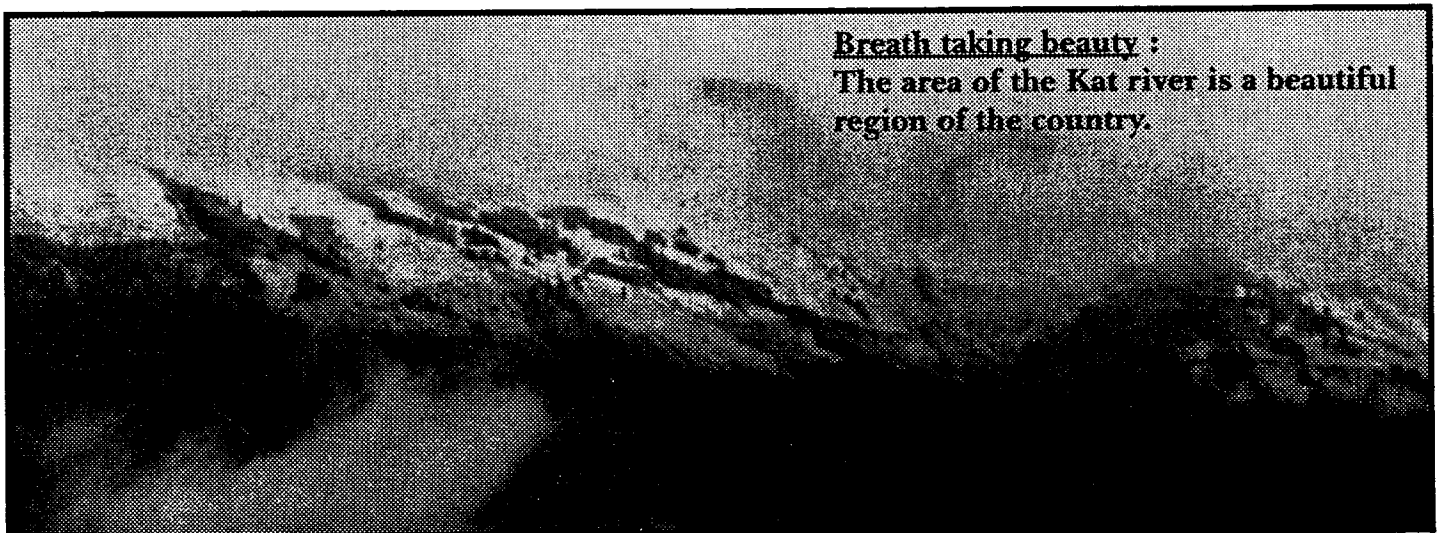
Cathy Hornby

and to all who participated in the newsletter.

Geography Department, Rhodes University,
PO Box 94, Grahamstown, 6140
Tel: (046) 603 8325 Fax: (046) 636 1199
email: N.Motteux@ru.ac.za



Breath taking beauty :
The area of the Kat river is a beautiful region of the country.



ANALYSIS OF THE DETAILED QUESTIONNAIRE FOR THE KAT RIVER VALLEY PROJECT (KRVP) 2000 BY PETER MAGNI & NICOLE MOTTEUX

The survey of diverse stakeholders in the Kat River Valley from 15 communities and commercial farming enterprises.

Description of respondent's community, farm or household

Question 1 Population in the communities of the Upper Kat River

Of the 13 respondents questioned concerning the number of people living in their community, nine respondents said that they had under 100 people in their community. Three respondents said that there were between 100- 499 people in their community, while a single respondent from community no. 17 claimed there were between 500-1499 people in their community.

Inconsistencies in the data concerning the population of the Kat River was that three residents of the same community (no. 17) gave three different categories of population. A possible reason for this is that the community was defined differently by each respondent. A similar inconsistency was had with two respondents from community 16.

From the information collected it is apparent that the population under the Kat River Valley Project, consists largely of small communities of less than 100 persons with a few larger communities of between 100-1500.

Question 2 Duration of residence

Of the 12 respondents questioned on how long they had lived in their respective communities 50% stated that they had resided in the area for more than 29 years. The other six respondents were divided equally over three categories. These durations of residence were 3-5 years, 6-10 years and 11-28 years.

From these respondents it can be seen that there are a number of people in the Kat River Valley who have been in the area for over a generation. Of those interviewed no

one had been in the valley for under a year. This would suggest a degree of stability within the communities interviewed.

Question 3 Employment and other activities of respondents

Of the 13 respondents to answer this question the most common activity among them was agriculture, which was referred to by four of those questioned. Agriculture in turn, can be divided into agriculture, two respondents used this definition, and co-operative agriculture as carried out under HARCOP (Hertzog Agricultural Co-operative), which a further two respondents saw as their means of employment. All four of the above respondents saw agriculture as a full time pursuit, and a part of the formal economy. Only one respondent, who was also involved in agriculture, saw himself/ herself involved in the service sector as a teacher. Unemployment was the said state of three of the respondents. Two other respondents stated that they were employed but did not specify what it was they were involved in.

As an employment and a pastime which has a degree of status attached to it, agriculture is the most important pastime in the communities interviewed. There is also a tendency for those who are employed to hold down more than one full time job, while others have no employment at all. From the answers it is clear that unemployment is a problem in the communities. It is also apparent that the employment opportunity is limited to agriculture and a few services.

Question 4i Organisations involved in river management

Of 35% of those interviewed the transitional local government is seen as the body which is responsible for water management. A further 16% see other Government department or structures as those bodies responsible for water management namely the: Department of Water Affairs and the Kat River Irrigation Board. Beside the 18% of respondents who did not know of any organisation which influenced river management the remainder (29%) of those interviewed recognised community-based organisations or non- government organisations. Those organisations mentioned were World Vision, Masincedane, Hertzog Agricultural Co-operative and the Citrus Growers Association.

Question 4ii Organisations involved in economic and agricultural development in the Kat River Valley.

The organisations which influence development in the communities interviewed can once again be divided into government, non-government and community organisations, with the inclusion of financial organisations. An indication of the broad scope of the developments occurring in the valley, was that 7 of the 25 respondents gave more than one organisation which was influencing development in the valley. 16% of respondents said that the Philani Timber Project was the key development organisation while 12% saw World Vision and Masincedane as being most important. A host of other organisations were acknowledged by two votes each. These were the Agricultural Project, the Department of Agriculture, Banks, technical support, and the transitional local councils of the area. Only two respondents said there were no organisations which influenced economic and agricultural development in the area.

Question 5 Strengths of the villages, communities and farms

Of the 86 responses 45% said that the strength of their social grouping was unity amongst the people in that community. 20% of the respondents stated that development within their respective communities was one of their strengths. Related to the concept of development and unity within the communities, was the response that one of the strengths was the presence of recreational facilities for sports and recreation which mentioned in 13% of responses. Only 10% of responses said that there were no strengths in their communities.

Question 6 Weaknesses in the villages, communities and farms

From the 98 responses it is apparent that there are more weaknesses than strengths in the social units of those interviewed. Respondents also gave more than one answer to this question. Two weaknesses were targeted by 21% of responses, these were the under-developed water systems in the communities, and the lack of capital or assets for development. The latter acknowledged weakness would suggest that development which was seen as a strength in the previous question could be constrained by this perceived weakness. Underdeveloped water infrastructure within the community could also be related to the lack of capital and assets within the communities. Poor

communications were also perceived as a weakness of 17% of responses. This is strange considering that one of the main perceived strengths of the given communities was the unity within the communities which would suggest that communication was good. Unemployment was seen as another major weakness by 13% of responses. Other perceived weaknesses which were mentioned included the lack of unity(6%), corruption and nepotism(1%), under-developed services in the community(10%), insecurity due to undefined land ownership(4%), lack of skilled manpower(1%), weak buying power(2%) and political differences(2%).

Question 7 Ownership of the village, community or farm

50% of the 32 responses said that their land was owned by the Government. 25% said that the land they lived on belonged to individual land owners, while 6,25% said that the land was owned by closed co-operatives or coloured people. Perhaps the most worrying statistic is that 12,5% of respondents could not define who owned the land they lived on. Such a situation can only breed insecurity.

Question 8 Conflict or tensions in the village, community or farm

Fifty-two percent of those questioned said that there were no conflict or tensions. This suggests a secure and relatively harmonious communities in the areas involved in the questionnaire. Of the conflicts and tensions which were most often referred to (18% each) were landownership disputes and occasional domestic conflicts. Both of these concerns were usually made in conjunction with each other by the same respondent. Other conflicts or tensions which were alluded to were nepotism or favouritism, stock theft and water distribution. Most of these problems are associated with land ownership and the distribution of resources.

Description of the use of the Kat River, its resources and the surrounding area

Question 1 Water Resources which the communities/ organisation/ households rely on

Resources used by the respondents which originate from the riverine environment go far beyond water, though except for taps and the associated reticulated water system,

all the resources used by the respondents were natural and renewal resources. Another aspect of the use of the resources by the respondents is that the majority use more than one resource. This may indicate that there is pressure on the environment from an overuse of resources.

Of the 128 answers given by the respondents 41% used the river for wood fuel. The common use of wood for fuel indicates that this resource may need a strategy so that there remains a ready source of fuel, into the future for those who need it. 22,7% of the responses said that they used sand from the river which would possibly be used for building. Further resources which are widely used are those of reed grass for various domestic needs and fish. The use of river water itself was only mentioned by 7% of responses, while only three respondents said that they used water from Kat River Dam(2%) and only three said that they used taps (2%). Perhaps the use of water was considered as an obvious resource by those who were questioned. The only other minor resource, was the use of the riverine environment to collect flowers and herbs (4%).

Question 2. Using the river resources and the surrounding area

Considering the large number of resources which are used from the river environment there is a need to analyse the impact of the communities on their resources. To ascertain this impact select respondents were questioned on five aspects concerning the community and the relevant resource. These aspects were the source from where the resource was collected from; the frequency of use of the resource; the condition of the resource; the supply of the resource; and the respondents dependency upon that resource.

The resources associated with the river which were used in this analysis were: Resources associated with food, fuel, building construction, house-hold use and the use of water.

River Resources used which can be associated with the provision of food include riverine areas for grazing and watering stock, fishing and the gathering of food and herbs.

In terms of grazing the location for the three respondents was the Kat River. Two of the three respondents said that the stock used the river on a daily basis and that there was plenty of grazing, while one respondent stated that they grazed their stock near the river once a month, and another stated that there was only a medium supply of grazing. All three said that they depended greatly on the grazing near the river.

All those questioned concerning fishing used the Kat River as their venue. Fishing was a weekly or a monthly occupation for two of the respondents while the third was uncertain, as he was for the other questions. The supply and the state of fish was seen as good and two did depend on fish as a source of food.

For the two respondents who gathered food, other than fish, from a water resource one used the Kat River while the other used a private dam. The one who used the Kat River used the resource approximately once a week, while the other used the dam on a daily basis to collect food. Both were highly dependent on this resource for food. The collection of herbs was identified by two respondents. One who collected herbs along the Kat River indicated that though the quality of herbs was good the supply was running out though they did not depend on herbs greatly. The other respondent collected herbs from a private dam on a weekly basis said that the herbs were in a good condition and that the supply was good and that they had a high dependency on herbs.

As indicated in the previous question the collection of wood is the most important resource according to the most respondents as a form of energy. The expanded questions reinforces this presumption with all but four respondents saying that they depend greatly on fuel wood, collecting wood on either a daily or a weekly basis. Despite the wide and consistent collection of wood the majority of users stated that there was still a good supply of wood and that the condition of the fuel was reasonable too good. Almost all fuel was collected from the banks of the Kat River.

River Resources used for building construction included stone, sand, wood and reeds.

As may be expect wood for construction is collected from the Kat River and the supply and condition of the resource is the same as that for collecting wood. The difference however is that wood is used less frequently on a monthly or bi-annual

basis. Similarly the collection of stone is only quarried occasionally on a monthly or bi-annual basis from the Kat River. Though there is good supply of stone there is a consensus between the two respondents that the quality of the stone is poor. Sand as indicated by the previous question, is an important resource amongst respondents, more so than stone. Most sand is obtained from the Kat River on a monthly basis. According to those questioned there is good supply of sand of good quality. Sand was an important material for all respondents. The final building material was that of reeds this was collected from the river on a monthly basis by both respondents and they both said that there were plenty of reeds for construction purposes. A household use of grass and reeds, is for making mats. The resource is collected from the river and in the case of both respondents, on a monthly basis. The condition of the resource according to the answers appears to be good.

As indicated by the responses to the given question, water is the single most important resource for the purpose of drinking, laundry, household use and irrigation. This is despite water not being perceived as an important resource in question 1.

For drinking, laundry and household use the responses gained were similar. All except four respondent, three of whom used weirs and one who used taps, used the Kat River as their source of water. Water for drinking and household purposes was collected on a daily basis, while laundry water was used on a weekly basis. There is consensus amongst the respondents that there is enough water for themselves though 72% of respondents claimed that the quality of the water was poor. This is problematic considering that all respondents are dependent up on the water for day to day use.

Irrigation is important for the communities interviewed who depend largely on agriculture for their existence in an essentially dry climate. Water for irrigation is obtained by four of the six respondents from the Kat River, while one each get irrigation from a weir or by the use of a pump. All respondent have a high dependency on irrigation. Only one of the six claimed that the water supply was running out. This is perhaps due to the respondent using irrigation water on a daily basis while the rest only irrigated on a weekly basis.

Question 3-6 Issues and problems associated with the river and the use of its resources.

As suggested in the previous question, issues concerning water are those which most affect the respondents. In a sample of 93 people 41% indicated that polluted water was a serious problem in their area, while 40% indicated that a shortage of water affected them. The perception that there is a shortage of water goes against the smaller samples taken in the previous question the contradiction probably is due to the small size of the previous sample. A further issue raised by 9% of the respondents involving water was poor health and disease which were associated with the river. Other issues engendered less attention from respondents were, a shortage of fuel wood, issues over sand, no land for grazing livestock and problems concerning irrigation.

Whereas the above question asked for the respondent's opinion on the condition of the river, the next question asked whether they had noticed a list of specific indicators for a deteriorating riverine environment. When questioned about irregular and high flows 85% of the responses were that they had noticed such fluctuations, which were probably due to the Kat River Dam releasing water for citrus in the middle and lower reaches of the Kat River. In terms of pollutants in the river, the following responses were obtained: Fertilizer waste (61% of respondents), human waste (96%), livestock waste (92%), high sediment waste (85%) and plastic pollution (85%). 97% of respondents noted fallen trees, while 100% identified the increase in the growth of reeds. Reasons for the last two indicators could be due to the variability of flow in the river, poor fuel wood collection practices or increased erosion (93%). In the case of fallen trees or increased nutrient levels from waste could encourage the growth of reeds.

When asked how the above variables have affected the river and how the communities use it, 51% said that it increased water pollution, 25% said that they increased disease and poor health in the community. Finally 14% said that environmental exploitation was the reason for the above variables and this was due to poor awareness amongst the communities. Besides fertilizer waste, the problems associated with the Kat River are due to pressure on the natural resources used by those living on its banks and a lack of environmental awareness when using these resources.

Possibly one of the reasons why certain of the above problems exist is due to free access to the river's resources. 83% of 25 respondents said that they could use the

river's resources at will. Only 17% said that there were constraints on their use of the river's resources.

Question 7-9a Management of the Kat River resource

In terms of managing the Kat River, 46% of 81 responses said that curbing water pollution which would in turn lead to better health was the single most important issue. Considering the issues raised in the previous section, such a response is understandable. Related to the strong support for dealing with problems associated with the river was a call for overall effective management of the River made by 16% of respondents. From a counter-point of view, 15% of respondents said that management of the river should start with the communities themselves and not with other organisations outside them, and that there should a conscious effort to develop self- responsibility and environmental awareness within those communities. Other priorities put forward by respondents were, to conserve the trees and ensure that there is enough fuel wood (2%), the need to fence off the dam and river (5%), finally 9% saw that there was a need to control and monitor river flow so as to serve the diverse needs of all those in the catchment best. Only 7% of those interviewed said that they did not have any knowledge of river management and therefore could not comment on such issues.

The strong call for various forms of river management is due, according to the respondents (60%), to the fact that nothing has been done in the past. Steps which had been taken previously and were mentioned by respondents included; protecting both the Kat River Dam and private dams from pollution (20%), the discussion of problems at meetings (12%), the reticulation of the water supply (4%) and the boiling of water before it is used (4%).

As no widely executed form of river management has been carried out in the past in the communities interviewed nothing has been done by the majority of respondents (50%) when the communities have had problem with the water resource. Those who did address problems concerning water, contacted a number of organisations or persons. The organisation which was most commonly contacted was the TLC or relevant regional body, be it a SANCO official, community leaders, or the local political representative. Bodies who are connected directly to the management of

water, and have been approached by members interviewed included; the Irrigation Board representative and the Department of Water Affairs and Forestry. Though these bodies were approached they were only approached by a minority of respondents. The extent to which they have helped the communities questioned is probably negligible.

Question 11-14 The establishment of a river management body for the Kat River.

When questioned on how broader factors could or have affected river management actions there was one word which was common to all the given answers and that was, communication. The majority of respondents (+80%) said that communication had been carried out at all the levels set out in the questionnaire except that of government support where 65% of respondents said that they did not receive support for water management from the government. There was a consensus that communication on river management actions should be carried out amongst local village uses, with people upstream or downstream and communication with the village representatives who are responsible for the management of the river and the surrounding area. The desire to communicate amongst those interviewed shows that there is a desire for people to talk about water management not only in the narrow confines of their own family, village or community but with the broader community of resource users along the Kat River.

When asked whether a river forum would be useful and should be implemented 92% of those questioned said that it would be a good idea. A further 80% of respondents said that they would be glad to become involved with the development of the forum. The most common reason given for supporting the establishment of a river forum, which was supported by 35% of the respondents, was that the Forum would help to combat water pollution and improve human health. Secondly the formation was seen as a way to preserve the river water so it could be used effectively. This suggestion was supported by 23% of responses. Thirdly it was seen by 16% of answers that the forum would cement the rights of the respondents and be a form of representation in the larger community. Fourthly and fifthly, with 12% of responses, were the that a river forum would help to build good communication skills between river users and to help solve current and past water issues.

Essentially the questionnaire indicates that through it's analysis that there is a need for water management in this rural area which relies greatly of the resources of the Kat River. Furthermore and more importantly there is a willingness amongst those interviewed to see their water resources as a problem and to engage ways of solving these problems through communication between communities, individuals and the relevant organisations and government institutions.

* * * * *

APPENDIX 4 BOX 6

2000

BOOKLET TITLED 'CARE FOR THE RIVER AND THE RIVER CARES FOR YOU' - ENVIRONMENTAL AWARENESS WORKSHOPS 2000

Booklets that detailed the results of the environmental workshops that were presented to stakeholders at the Way Forward Workshop

**"Care for the river and the river cares for you"
Environmental Awareness workshops
2000**
































Attended by people from:




























Amherst, Balfour & Seymour, Blinkwater, Decken, Gonzana, Ntilini, Oakdene, Orange Range, Picardy, Platform, Stanley, Tidbury Toll, Upsher, White






















Workshops held at:









Amherst, Balfour & Seymour, Gonzana, Ntilini, Picardy, Platform, Tidbury Toll, White

Condition	Village								
	Nrilini & Blinkwater	Gonzana	Tidbury Toll & Oakdene	Amherst	White	Picardy	Platform Upsher Decken	Balfour	Seymour
<p>GOOD</p> 									
<u>Nature</u> to support nature and humans	 frogs			 God's gift		 ducks, birds, fish	 ducks		 insects are food for fish
<u>Food</u> e.g. fish									
<u>Sand</u> building; keep water clean	 slows water flows								
<u>Grass</u> Stop erosion; grazing; roofing; bird nests									 absorbs harmful substances
<u>Reed</u> income generator; prevent erosion	 mats	 mats, baskets	 build houses	 mats		 mats	 roofing, mats		 mats, hats
<u>Stones</u> prevent erosion; purify water			 blocks sand				 building	 protect insects	 helps drain flood water

<p style="text-align: center;">GOOD</p> 	Ntilini & Blinkwater	Gonzana	Tidbury Toll & Oakdene	Amherst	White	Picardy	Platform Upsher Decken	Balfour	Seymour
<p><u>Trees</u> fuel; shade; prevent erosion, beautiful</p> <ol style="list-style-type: none"> ①. Inqoty (fruit) ②. Umngcunube (healer), ③. Sarina (furniture), ④. Umtole (smoking pipe), ⑤. Ingcongolo (house building, baskets) ⑥. Umkhoba ⑦. Thorn tree (fire wood, food for livestock) ⑧. Mvumvu (fruit, windbreak) 	😊	😊 ② ⑤ ⑧	😊 ⑦ ⑧	😊 ⑤ ⑥		😊 ① ② ④	😊 ②	😊	😊 ⑦. stop plastics going into water
<p><u>Soil</u> planting; support; grazing; building</p>									😊
<p><u>Plants/Herbs</u></p> <ol style="list-style-type: none"> ①. Umsolo (pimples) ②. Unukanuka (flue) ③. Intsasela (ancestor praise) ④. Nuka-nuka (fever, stops fleas) ⑤. Umsolo 	😊 ④	😊 ② ③ ④				😊 ①	😊 ⑤		
<p><u>Water</u> human, environment, livestock basis need - drinking, cleaning, irrigating</p>		😊				😊			
<p><u>Bridge</u> crossing river</p>				😊					
<p><u>Flowers</u> makes area beautiful, decoration</p>	😊								

Condition	Village								
	Ntilini & Blinkwater	Gonzana	Tidbury Toll & Oakdene	Amherst	White	Picardy	Platform Upsher Decken	Balfour	Seymour
BAD 									
<u>Alien tree spreading</u> ; use lots of water; kill other plants ①. Idywabasi ②. Iqolodiba ③. Sarina ④. Cane ⑤. Steambloor ⑥. Gum trees	 ①	 ①	 ⑤			 ②	 ⑥		 ③ ④
<u>Dead animals</u> pollute water; not removed; care for river animals							 up-stream dump in river		 cause disease
<u>Litter</u> , e.g. cars; Tyres; gumboots; bottles; cans; broken glass cuts, wire	 cause disease			 cause disease					 cause disease
<u>Plastic harmful</u> to livestock, river & environment, dirty area									 -must recycle
<u>Tree logs</u> blocking flow; dirty water									

BAD 	Ntilini & Blinkwater	Gonzana	Tidbury Toll & Oakdene	Amherst	White	Picardy	Platform Upsher Decken	Balfour	Seymour
<u>block rubbish</u> trees, reeds, blocked culverts									
<u>Animals</u> dirty water; illness; pollute			 faeces				 pigs, insects	 Dogs, insects	 Geese, pigs
<u>Leaf</u> block river									
<u>Dirty water</u> polluted for drinking	 cause illness		 river water dirty						 no purification , algae
<u>Sand</u>								 blocks flow	
<u>Graves</u> flooded ancestors angry; illness									
<u>Toilets</u> runoff into water supply; illness; bad smell					 Seymour sewage runs into river				 use river as toilet
<u>Grass</u>									 Umkhazi

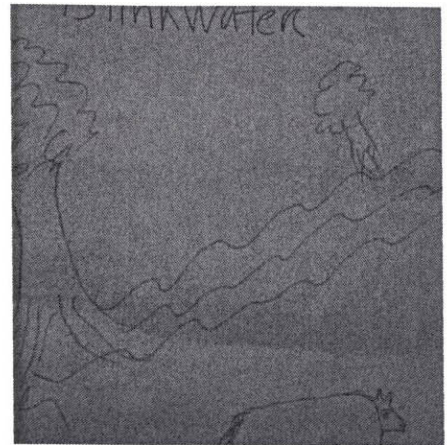
<p>BAD</p> 	Ntilini & Blinkwater	Gonzana	Tidbury Toll & Oakdene	Amherst	White	Picardy	Platform Upsher Decken	Balfour	Seymour
<p><u>Poor treatment of waste</u></p>		 oranges dumped in river					 up-stream dump, ie diesel from Seymour		 waste thrown into drains that go into dam, engine oil, chemicals leak e.g. from bottles, rubbish dump near dam
<p><u>Washing soap</u> Oma, bleach</p>									
<p><u>Reeds</u></p>									 clog water

Blinkwater & Ntilini

(5 & 4 April)



A river is... it is a help
to people, it is water,
frogs, fish & trees



☹️ Concerns

- no care for river animal
- No voice with flow releases
- exploitation of the environment & people Lazy
- Land owners consider it a right to exploit the land
- up-stream people have no care, e.g Seymour

Solutions

- ⇒ awareness creation of the importance of frogs, fish, insects
- ⇒ Need more information
- ⇒ Community building responsibility
- ⇒ Awareness creation of the effects of exploitation on community and 'loved ones'
- ⇒ Parents help children to gain environmental respect & responsibility
- ⇒ must respect downstream communities

The Remarks of Blinkwater & Ntilini Participants

😊 Positive

- 😊 Leant that the river and surrounding environment has needs
- 😊 Notification of the Water User constitution
- 😊 Good to understand up-down stream effects and responsibilities
- 😊 Enjoyed the workshop - the programme, talks, discussions
- 😊 Workshop focussed on our "real needs"

📝 Way Forward

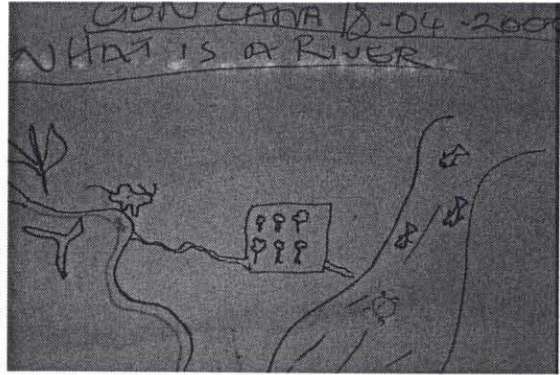
- To apply river care in our lives
- To teach others
- To understand the Water User Association constitution

Gonzana

18& 19 April



The river is ... the people's kingdom. We find frog, fish, leaves



☹️ Concerns

- Downstream effects, e.g, dumping of oranges
- Dirty water
- Unhealthy environment

Solution

- ⇒ Communicate with up-stream farmers
- ⇒ Keep water supplies clean, i.e no washing at river & keep animals away
Do not waste water
- ⇒ Communicate & build up sense of responsibility within village & set rules

The Remarks of Gonzana's Participants

😊 Positive

- Opportunity to learn of the river & environment
- Felt comfortable with Kat River Valley facilitators
- Realised the importance of communication in the community & with up-stream communities

☹️ Negative

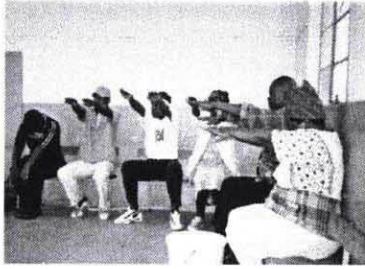
- Washing, oranges, dead animals polluting water
- No communication

📝 Way Forward

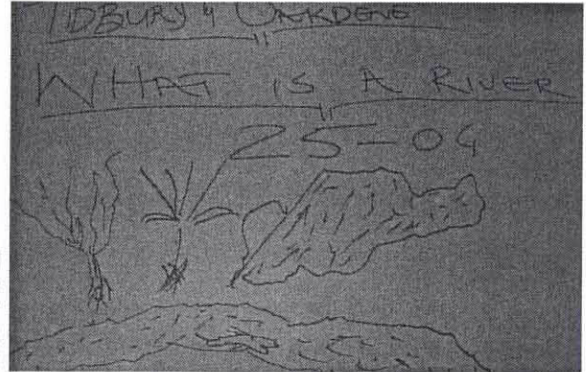
- Draw up community guidelines to prevent poor management
- Need communication in the village

To care for the river & environment

Oakdene Tidbury Toll
(25 & 26 April)



A river is .. "is crucial"
" It is a home to animals,
trees, stones"
"All water is ending in
the river"



☹️ **Concerns**

- Downstream effects, e.g, Seymour has no sewage
- No care for nature
- Unhealthy environment

Solution

- ⇒ Seymour TLC/TRC need to take action
- ⇒ Respect insects & other river animals
- ⇒ Communicate & build up sense of responsibility within village & up-down stream people to care
- ⇒ Stop been lazy

"we the community must take care of the river because it is us who drink the water"

The Remarks of Oakdene & Tidbury Toll Participants

😊 **Positive**

- Drama helped us learn & share about the environment
- Flexible approach captured our needs
- Workshop based in Xhosa culture recalled our way of caring for the environment
- Learnt of the constitution
- The voting map helped us understand and appreciate the whole area

☹️ **Negative**

- More explanation of voting map

✎ **Way Forward**

- Stop polluting environment

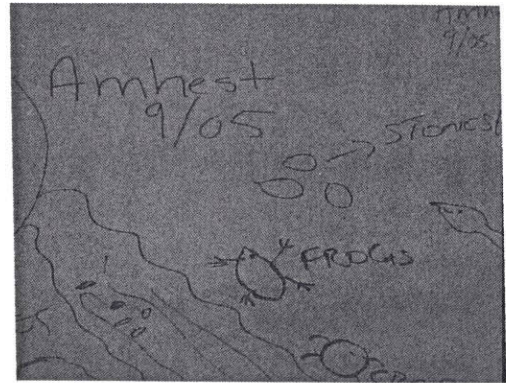
To care for the river & environment

"care for river and environment and everything so that the environment can care for us"

Amherst (9 & 10 May)



A river is like a house that has windows, walls, floor and door - it includes everything not just water



☹ **Concerns**

- Lack of communication
- Water Pollution
- Exploitation of the environment

- No respect

Solutions

- ⇒ Need to come together & talk
- ⇒ Encourage behaviour change
- ⇒ Community building responsibility
- ⇒ Awareness creation of the effects of exploitation on community and 'loved ones'

- ⇒ Parents help children to gain environmental respect & responsibility

The Remarks of Amherst Participants

😊 **Positive**

- Leant about the river
- The plays were "fun"
- Enjoyed the workshop - it "*brought encouragement to the community*"
- Opportunity to analyse community & environmental needs & seek solutions

☹ **Negative**

- More people should have attended the workshop especially the youth
- Much development work is all talk & often the agents of development disappear.

✎ **Way Forward**

- Require more information on AIDS

To care for the river & environment:

"it is our future. We must protect and keep it clean. Stop killing animals as it is part of our living - don't even chop tree as it is God's gift. Lack of care will kill us in the end"

White

May16& 17



A river is ... "something to be respected, there are ancestors there and we also get some medicine from the river"



☹ Concerns

- Taps are expensive to maintain
- Killing of animals
- No respect of the nature & forgotten the Xhosa culture

Solutions

- ⇒ Establish a community structure to account for money and deal with related problems
- ⇒ Care and respect animals, such as frogs and other river animals
- ⇒ A meeting will be scheduled if community people disrespect or harm the river area

The Remarks of White's Participants

😊 Positive

- Opportunity to learn of the Water Users' Association
- Welcome and look forward to the establishment of Water Users' Association
- Enjoyed the workshop & the 'up-down stream' play

☹ Negative

- "Sorry we do not have any negative observation. We would tell you if we had ones."

✎ Way Forward

- "We would like the workshop to happen again in the future".
- Select a representative for the Water User Association

To care for the river:

"means to love it and treat it carefully. Everyone must take care of the environment the environment helps us, e.g., I sit under tree for shade"

To the river:

"just cutting trees

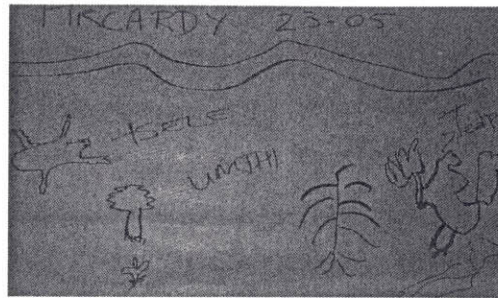
"if I am rude and talk harshly that is destruction"

Picardy

(23 & 24 May)

☹ **Concerns**

- No toilets (no government support noticed)



Solutions

⇒ Discuss the need for toilets as a community. Require youth to become involved in building toilets.

- Water dirty ⇒ Communicate with people to wash away from river, fence dams, ask for taps
- Up-stream communities dumping waste & sewage in river ⇒ Communicate with up-stream people

"to solve the problems through sitting down & negotiating & not to fight"

The Remarks of Picardy's Participants

😊 **Positive**

- Notification of the Water User constitution
- To understand up-down stream effects and responsibilities
- Gain the background of the Kat River Valley Project
- Approach of drama and sharing of information helped build an awareness of the importance of the environment
- Recalled and reminded us of the importance of Xhosa cultures respect for the environment

☹ **Negative**

- The workshop focussed on talking without action. Fear the project leaving without bringing changes

🚗 **Way Forward**

- Each person must take personal responsibility of river management before accusing others of poor management

To care for the river:

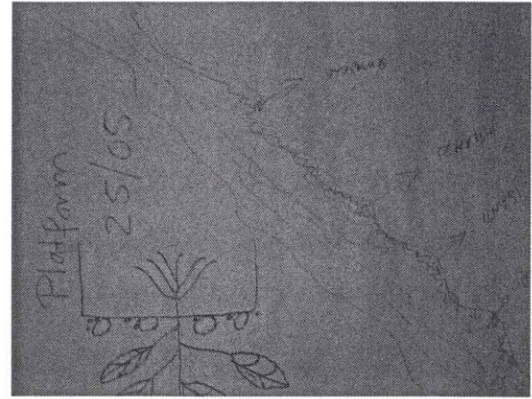
"to look and care for the river and environment and not kill animals but help them"

Platform

(25 May)



river is ... "flowing water"
"A place for Sangoma"
"Ancestors live there"



☹️ **Concerns**

- No toilets
- Collecting river water is far
- Animals and humans use the river
- Up-stream communities dumping waste in river
- Unpredictable dam release

Solutions

- ⇒ Government project
- ⇒
- ⇒ Build tanks for animals
- ⇒ Fence communities drinking water
- ⇒ Communicate with up-stream people
- ⇒ Need communication

The Remarks of Platform, Upsher & Decken Participants

😊 **Positive**

- Notification of the Water User constitution
- Understand up-down stream effects and the responsibilities
- Gained a background of the Kat River Valley Project
- Workshop approach gave us information & encouraged sharing of the needs of the environment
- Reminded us of the importance of Xhosa culture's respect for the environment

✍️ **Way Forward**

- Each person must take personal responsibility of river management before accusing others of poor management
- Need action

To care for the river ... "To care and protect e.g., take green wood not dry wood"
To harm the environment ... "Destroy the environment which is needed by others"

Balfour

(24 & 25 May)

☹️ **Concerns**

- No respect for the river by the township people
- People from downstream are getting ill because we are polluting the water

Solutions

⇒

⇒



The Remarks of Seymour Participants

😊 **Positive**

- Enjoyed reading Kat River Valley brochure and newsletter
- Good to understand up-down stream effects
- Good to realise the need to take responsibility in river care
- Approach of drama, walks and sharing of information helped build an awareness of the importance of the environment
- Interested in the water quality project
- Aids drama provided information

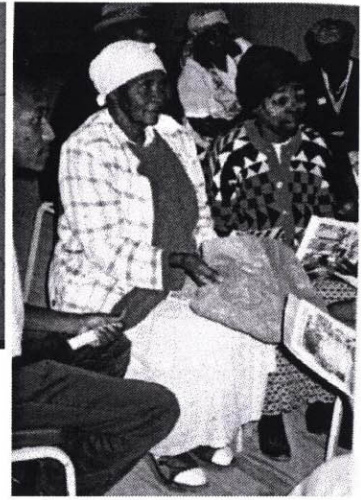
📝 **Way Forward**

- Elect people for the catchment forum
- Communicate with other villagers along the Kat River
- Come involved in the water quality project
- Need aids awareness
- Each person must take personal responsibility of river management

Seymour

(24 & 25 May)

River is ... life, it comes
from the mountains



☹️ Concerns

- Lack of communication
- Community has "no voice"
- Seymour polluting dam - the water supply
- Graves under dam
- Graves close to dam
- Tap water not purified

Solutions

- ⇒ Form a concerned environmental group - talk and act
- ⇒ Environmental group come together to clean up
- ⇒ Write a letter to Minister r to request a formal apology
- ⇒ Build a wall & stop erosion - TLC

The Remarks of Seymour Participants

😊 Positive

- Good to understand the changes in Water Law and how it effects us
- Good to realise the need to take responsibility in river care
- Learnt of the importance of the environment
- Learnt new approaches to workshops, i.e., drama
- Need co-operation between Kat River Valley and community people to organise meetings
- See the need for the catchment management forum

☹️ Negative

- More people should have attended the workshop especially the youth

✍️ Way Forward

- Work closely with other villagers for a healthy river and environment
- Work with Kat River Valley Project
- Each person must take personal responsibility of river management

Your Community Task

① Nominate your community representative for the catchment forum

①
②

② Using your Water User Association Voter's Map locate which Voting area you fall into and write it in the box

--

③ Who is going to represent you on the Water User Association?

--

④ Write the environmental activities that you have preformed since the workshop

⑤ Write down your next environmental objective & make sure you record your progress

Drama Group: Monde Mtshudu, Matthews Nontyi, Jerry Ntsebeza, Vuyani Moboshe, Thamsanqa Phillip and Moly-Anne Nqweniso

Written and compiled by: Nicole Motteux

Editing and Graphic design by: Miranda Armstrong

APPENDIX 4 BOX 7**2000****SOME EXAMPLES THE ACTION FRAMEWORK**

The Action Planning Workshop held in July 2000 resulted in local stakeholders in developing a work plan to move their identified needs to action

Outcomes: Amherst, White, Oakdene, Tidbury's Toll

Outcomes/ Comment/ Threat	Action	Why do it?	Who will do it?	What resources will be needed	How will we know it's done?
Debris blocking channel and bridge	Clean out the river channel (remove dead trees and canes)	Blocked channel causes very high flow	Community in collaboration with Water User Association	Saws Sledges Tractor to pull logs Chain	Channel will be cleared
	Unblock bridge	Present situation dangerous; Bridge impassable during high flow	Community and department of public works	Saws Sledges Tractor to pull logs Chain	Bridge will be less dangerous and is passable
	Raise height of bridge	Present situation dangerous; Bridge impassable during high flow	Community and department of public works	A means of communication to DPW	Bridge will be less dangerous and is passable
Toilets	Increase number of toilets	Effluent in community - washes into river.	Community - motivated by catchment forum	Zinc, Planks, Nails, Bolts	Every family has access to toilets
Fields not planted (no access to fallow fields)	Make community committee to negotiate with farmers	Want to plant fields	Catchment forum will drive the formation of the committee		Access to fields gained
Pollution - Pesticides; Negligent use of chemicals	Meet with farmers; Send memo to farmers	Pollution and danger of pesticides/ negligent use	Catchment forum members and Upper Kat Citrus Growers	Contacts Transport Venue Administrative resources	Farmers start becoming more accountable, less negligent
Access to water for irrigation; Furrows/canals to Amherst and White	Approach WUA to discuss water use; Fix furrows that leak water	Need water to water garden and to drink; Burst furrows flood houses	Paid members of the Amherst and White communities; Citrus farmers; Catchment Forum representatives will approach Water User Association and will meet with funders; Committee will be set up to maintain furrows	A means of contacting WUA; Cement Concrete Sand Tractor Trailer	Furrow works and community has better access to water

Outcomes: Blinkwater, Ntilini, Gonzana, Tidbury's Toll, Oakdene, White, Amherst

Outcomes/ Comment/ Threat	Action	Why do it?	Who will do it?	What resources will be needed	How will we know it's done?
Erosion (Dongas)	Build retaining walls in two of the dongas at Ntilini Attempt to grass them over	Dongas are dangerous to people and animals They undermine houses Want grass	The community members (men and women) to be employed Will appoint a management committee	Tractor to carry stones Money for employment Soil and stones, Netting wire Advice for the design of the wall	It will have reached the stage where the funders can be shown a successful job
Donga in the road	Fix the road	Difficult for cars to pass; Dangerous	Department of Public Works	Information and a means to communicate with DPW	When the road is fixed
Fencing	Build fences	To fence off trees Don't want cows in the river; Don't want cows to leave territory Don't want cows on the road Better management with respect to ground-cover and erosion	Paid members of the community Community management committee (who will also oversee maintenance)	Poles Wire Wire strainers Pliers Wire netting Tractor and trailer Spades, picks and crowbars	Fence is made
Tree Planting	Planting of trees (Galboom/ American Aloe)	To reduce soil being washed away	Community Forum will oversee	Saplings Fencing Watering of trees	Reduction of soil being washed away

Outcomes: Blinkwater, Ntilini, Gonzana

Outcomes/ Comment/ Threat	Action	Why do it?	Who will do it?	What resources will be needed	How will we know it's done?
Water Quality (Improved)	Conduct survey of nutrient and effluent transfers to river from pit latrines and groundwater seepage	Determine human health risks	Rhodes University (Soviti) as service to Catchment Forum and WUA	Money for transport, sample collection, analysis and reporting to CMF and WUA	Analysis results and report presented to WUA and CMF
	Identify alternative latrine systems for villages - e.g: composting toilets	Reduce risk of nutrient, faecal coliforms and diseases in river from effluent	Rhodes University (Soviti) as service to Catchment Forum and WUA	Money for study	Study report produced; CMF and WUA informed
	Install more sustainable latrines in Gonzana and Blinkwater	Reduce risk of nutrient, faecal coliforms and diseases in river from effluent	TLC with support from WSSA and funds from DWAF/ community affairs	Money for installation; Training in Maintenance; Maintenance	Sustainable latrines installed and maintained
	Plant high water use trees near pit latrines to use nutrients and water	Create local groundwater sink to reduce the risk of groundwater contamination	CMF and local communities	Trees (Pepper-corn?) Fencing wire Ongoing Maintenance	Trees growing and established
Domestic Water Supply is safe and secure	Supply treated water to Gonzana and Blinkwater Communities	Currently water is taken directly from the river - polluted, dead animals, cattle drinking	TLC with support from WSSA and funds from DWAF under water services law	Engineering design Pipes and tanks Labour Maintenance training Maintenance	Community taps installed, maintained and used
	Repair and maintain stock water dams away from river at Gonzana	So that cattle do not have to drink from river	CMF with funds and equipment from PDA	Tractor Labour Fencing Gates	Dams/ stock water points used Less pollution in river

Outcomes: Blinkwater, Ntilini, Gonzana

Outcomes/ Comment/ Threat	Action	Why do it?	Who will do it?	What resources will be needed	How will we know it's done?
	Fence river area to exclude livestock	Stop cattle drinking direct from river - stop pollution of river from grazing animals	CMF with funds from DWAF, TLC, WUA, PDA	6 strand barbed wire 10km length for Gonzana, Ntilini, Blinkwater Labour	Fence erected and maintained Livestock excluded from river.
	Construct storage tank at Gonzana, Pump and pipes from river and Blinkwater, and community taps	Reduce time needed to collect water	TLC with support from WSSA and funds from DWAF or aid donors and NGOs (Mvula Trust).	Tank for storage of water for 25 houses, Pump, 1km pipe to Gonzana R85 000 from Amatola Water	Tank constructed, Community taps installed, maintained and used
Provide multipurpose wood-lots for soil conservation, shelter and fuelwood .	Plant multipurpose trees for fuelwood, shelter and soil conservation in Blinkwater and Gonzana	Trees - quick symbol for CMF action; Tangible and quick change.	CMF with support from PDA Landcare Programme and WUA (on soil conservation areas).	Seedlings Labour After-planting care Protection from grazing	Trees planted and cared for.
	Plant trees for shelter from strong winds in Gonzana and Blinkwater	Shelter from wind	CMF and home owners with support from DWAF and SAPPI/ MONDI	Seedlings Labour After-planting care Protection from grazing	Trees planted and cared for.
	Use trees (aliens) thinned from river for fuelwood and timber	Use resources for local economic development	CMF and community with support from DWAF	Saws Safety training Vehicle for cut timber Labour	Trees thinned or removed along river

Outcomes: Blinkwater, Ntilini, Gonzana

Outcomes/ Comment/ Threat	Action	Why do it?	Who will do it?	What resources will be needed	How will we know it's done?
Sustainable agricultural development	Working with Chief Maqoma at Gonzana to resolve land tenure issues	Make currently vacant land useable - available for use	PDA, Dept of Land Affairs, WUA/DWAF	Time for chasing decision makers	People have secure land tenure
	Provide tools and tractor services to people with rights/access to vacant lands	Make use of currently vacant lands	PDA, Emerging Farmer funds and WUA Kat River Development Programme Katco	Access to tractors for ploughing; Irrigation equipment (pump, pipes, sprinklers) Seedlings.	Land is used
	Training Programme for emerging farmers	To equip farmers for sustainable irrigation	PDA, Bisho extension service, Katco WUA	Training courses Trainers Mpofu Training Centre or similar	Courses provided; Farming practices reflect best practice.
	Establish demonstration farm plots in Gonzana, Ntilini and Blinkwater	To equip farmers for sustainable irrigation	PDA, Bisho extension service, Katco WUA	Lands for demonstration farm, Fencing, Tools Plants and Equipment Labour	Demonstration farms established
Riparian Zone Management	Remove logs and debris from river all along Kat and Blinkwater Rivers	Improve and clean river (logs trap water) Improve water quality	CMF with support from WUA	Chains Tractor Chainsaw to remove logs from river	Logs are removed from river
	Remove alien trees from river banks/riparian zone near Gonzana and Ntilini	Safety issues (trees are too dense near the river); and Water use and conservation issue	CMF with support from DWAF (Working for Water) and WUA	Working for Water programme funds	Trees along river are thinned or removed