



**BEHAVIOUR AND EFFECTS
OF THE TORRENTIAL
HYDROGRAPHICAL
MANAGEMENT
STRUCTURES IN A
MOUNTAIN WATERSHED**



**A new methodological and
statistical approach**

Coordinator: Ioan CLINCIU

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**BEHAVIOUR AND EFFECTS
OF THE TORRENTIAL HYDROGRAPHICAL
MANAGEMENT STRUCTURES
IN A MOUNTAIN WATERSHED FROM ROMANIA**
A new methodological and statistical approach

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Index

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Behaviour and effects

Foreword

Chapter 1: Didac

and effects of the

in the upper Tărlu

Chapter 2: Resea

the behavioral ev

of a transverse h

Chapter 3: Statist

of the damages r

hydrographical ne

Chapter 4: Statist

of the dysfunction

hydrographical ne

Chapter 5: Disser

Chapter 6: Disser

at conferences / s

Chapter 7: Disser

visits and/or shar

GENERAL CONTENTS

Foreword	4
----------------	---

FIRST PART

RESEARCH FROM 2002-2004

Chapter 1: Didactical and experimental dimensions, behaviour and effects of the torrential hydrographical network structures management in the upper Tărlung watershed	9
--	---

SECOND PART

RESEARCH FROM 2009-2010

Chapter 2: Research with respect to the frequency distribution of the behavioral events associated with the component parts of a transverse hydrotechnical structure	48
--	----

Chapter 3: Statistical research regarding the frequency and magnitude of the damages recorded during the utilisation of torrential hydrographical network management structures in the upper Tărlung watershed	66
--	----

Chapter 4: Statistical research regarding the frequency and magnitude of the dysfunctionalities recorded during the utilisation of torrential hydrographical network management structures in the upper Tărlung watershed	85
---	----

THIRD PART

DISSEMINATION OF THE RESEARCH RESULTS

Chapter 5: Dissemination of the research results through publications	103
---	-----

Chapter 6: Dissemination of the research results through scientific presentations at conferences / symposiums	107
--	-----

Chapter 7: Dissemination of the research results through documentation visits and/or sharing of experience	109
---	-----

CHAPTER 1

DIDACTICAL AND EXPERIMENTAL DIMENSIONS, BEHAVIOUR AND EFFECTS OF THE TORRENTIAL HYDROGRAPHICAL NETWORK MANAGEMENT STRUCTURES IN THE UPPER TÄRLUNG WATERSHED

Research team: Prof.Dr.Eng. Ioan Clinciu (Project Manager), Prof.Dr.Eng. Gheorghe Chițea, Lecturer Dr.Eng. Victor Păcurar, Assist.Prof.Drd.Eng. Cătălin Petrițan, Drd.Eng. Florin Lupașcu, Assist.Prof.Drd.Eng. Adrian Indreica, Assist.Prof.Drd.Eng. Magdalena Vasilescu, Drd.Eng. Dragoș Coman, Stud. Ioan Dutcă, Techn. Vasile Tătar (members in the research team) - *Transilvania University of Brașov.*

Objectives of the research

During the first year of the research cycle (2002):

- presenting, updating and revaluing the multidisciplinary conception, which led to setting up the didactic and research basis from Upper Tărlung Watershed,
- enhancing the didactic and experimental valences of the works that were projected, designed and executed for managing the torrential hydrographical network in this area.

During the second year of the research cycle (2003):

- research into the behaviour, under concrete field and torrentiality conditions, of the management works financed by the Forestry Sector, since their execution date and until the end date of the research project.

During the third year of the research cycle (2004):

- research-based assessment of the technical effects (hydrological and anti-erosion), economic, ecological and social effects of the mentioned works.

CHAPTER 2

**STATISTIC RESEARCH AS REGARDS FREQUENCY OF
THE BEHAVIOURAL EVENTS
ASSOCIATED TO THE CONSTITUTIVE PARTS
OF A TRANSVERSE HYDROTECHNICAL WORK**

Scientific report
for the objective I
(2009)

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Eng. Vasile Tătar

2.4. Bri

Bi

CONTENTS OF THE CHAPTER 2

ENCYC
PARTS
WORK

in Păcur
șneu
n Petriș

Introduction50

Research material and method51

Research results. Discussions.....54

2.3.1. Correlations of the frequency of the recorded
behavioural events.....54

2.3.1.1. Correlation between the frequency of the recorded
behavioural events and the number of executed
transverse hydrotechnical dikes.....54

2.3.1.2. Correlation between the frequency of the recorded
behavioural events and the number of damaged
constitutive parts55

2.3.2. Frequency distribution of the number of recorded behavioural
events57

2.3.2.1. Main statistic indicators for the distribution of the
number of recorded behavioural events.....57

2.3.2.2. Fitting the frequency distribution of the number
of recorded behavioural events.....59

2.4. Brief abstract. Conclusions.....62

Bibliography63

CHAPTER 3

STATISTIC RESEARCH UPON THE FREQUENCY AND INTENSITY OF THE DAMAGES AFFECTING THE SAFETY IN OPERATION AND THE SUSTAINABILITY OF THE TORRENTIAL HYDROGRAPHICAL MANAGEMENT WORKS IN UPPER TÄRLUNG WATERSHED

**Scientific report
for the objective II
(2010)**

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CONTENTS OF THE CHAPTER 3

3.1. Methodological elements	68
3.2. Frequency distribution of the overall damage number in a work.....	68
3.3. Frequency and intensity of the main types of damages	70
3.3.1. Cracking of the works.....	70
3.3.2. Breakage of the works.....	70
3.3.3. Damage by erosion of the works.....	72
3.3.4. Weathering of the works.....	75
3.3.5. Undermining the body of the works.....	75
3.3.6. Undermining the apron of the works.....	77
3.4. Synthetic conclusions upon the frequency and intensity of the main types of damages	79
Bibliography	82

CHAPTER 4

STATISTIC RESEARCH

UPON THE FREQUENCY AND INTENSITY OF THE DYSFUNCTIONS HAVING APPEARED DURING THE SERVICE PERIOD OF THE TORRENTIAL HYDROGRAPHICAL MANAGEMENT WORKS IN UPPER TÄRLUNG WATERSHED

**Scientific report
for the objective III
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Eng. Vasile Tătar

"Vegetation, especially forest vegetation, is the most effective way in torrential flows mitigation and, implicitly, in land erosion control.

But, until vegetation effectively accomplishes its hydrological functions, the endangered objectives must be protected against torrential flows. This goal can be reached through hydrotechnical structures".

Stelian Munteanu, 1968



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