GDPV   7KLV VXUYH\ ZDV WKH VWRSRJUDSKLF GDPV PDGH RXW RI S
IRU GHVLJQLQJ WKH GDPV XVHG FRPSRQHQWV LQ JWKH 7KH FRPSRQHQWV
WRUUHQWLDO YDOOH\ $IWHUZDUG GHVLJQ WR SDQG ZLGH VXUYH\ WKH IDFW W
ZHUH PDGH LQ   RQ WKH HQWLUH GHYHORSPHQW SURFHVV UHVROXWLRQ ZDV W
ZHUH WRUUHQW FRQWURO FKHFN GDPV ZHUH EXLOW FRQVWUXFWHG   P RQ D
WKH YDOOH\

6LWH ORFDWLRQ DQG PHWKRGV

6LWH ORFDWLRQ

9LGDV YDOOH\ LV D VPDOO WRUUHQWLDO YDOOH\ ...
KHFWDUHV   D OHIW ăWULEXWDU\ ...
)LJ   %DVHG RQ JHRPRUSKRORJLFDO ...
LV ORFDWHG LQ WKH QRUWKHUQ ...
FXUYDWXUH RI WKH (DVWHUQ &DUSDWKLDQV ...
WUDQVLWLRQ]RQH WKDW GHOLQHDWHV ...
$V D FRQVHTXHQFH RI WKLV ...
QXPEHU RI PRUSKRORJLFDO ...
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SUHGRPLQDQWO\ JUDIWHG RQ ...
DQG JULW VWRQHV   7KH ZDWHU ...
P 7KH DYHUDJH DQQXDO SUHFLSLWDWLRQ LV EHWZHHQ
PP DQG   PP
'XULQJ   V VHYHUDO GDPV ZHUH ...
IRU SURWHFWLQJ WKH QDWLRQDO ...
WRUUHQWLDO IODVK IORRGV ZKLFK ...
WR WKH DEXQGDQW UDLQV)RU WKLV SDUWLFXODU FDVH ZHUH

0HWKRGV IRU FUHDWLQJ '(0 IRU

,Q   D SURMHFW ZDV SUHSDUHG IRU ...
... 7KLV SURMHFW ZDV S...
... MRLQW WHDP ...
... UHTXHVW RI)RU...
... %XFKDU...
... WKH ...
... HVWLPDWH ...
... WRSRJUDSKLF ...
... SRSRJUDSKLF ...
... WKLV WR...
... HOHYDWLRQ FR...
... SURILOHV PHDV...
7KH WRSRJUDSKLF VXUYH\ ZDV GRQ...
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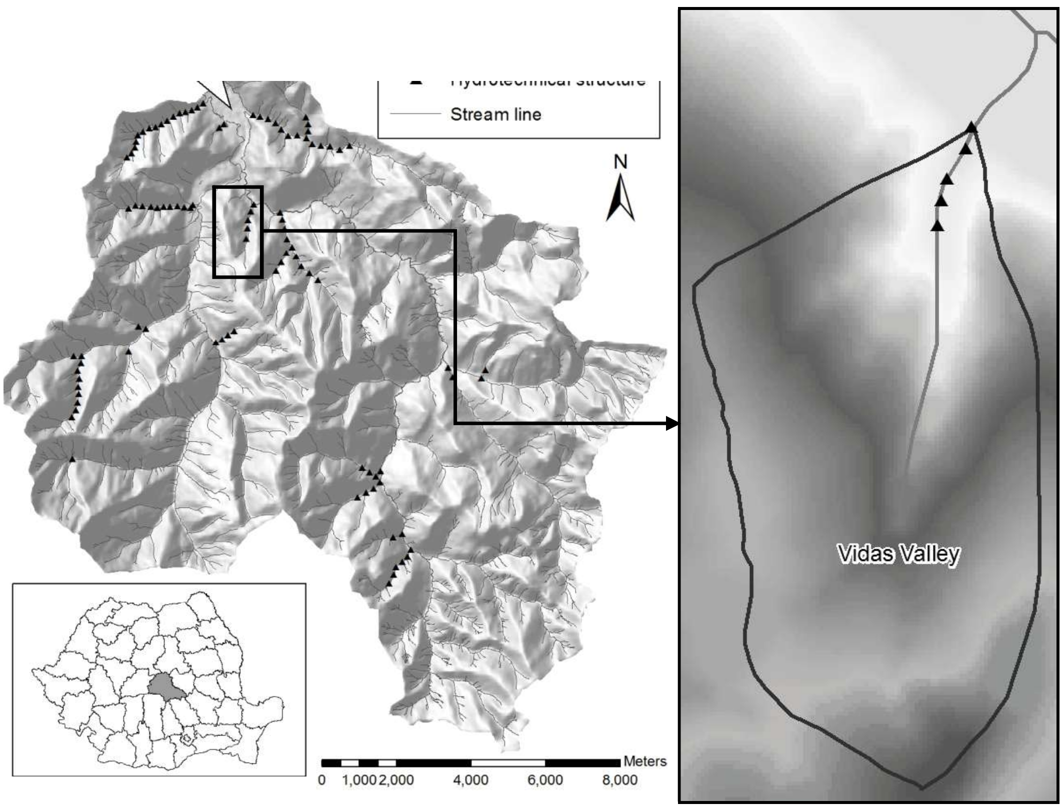
... FDVH ZHUH



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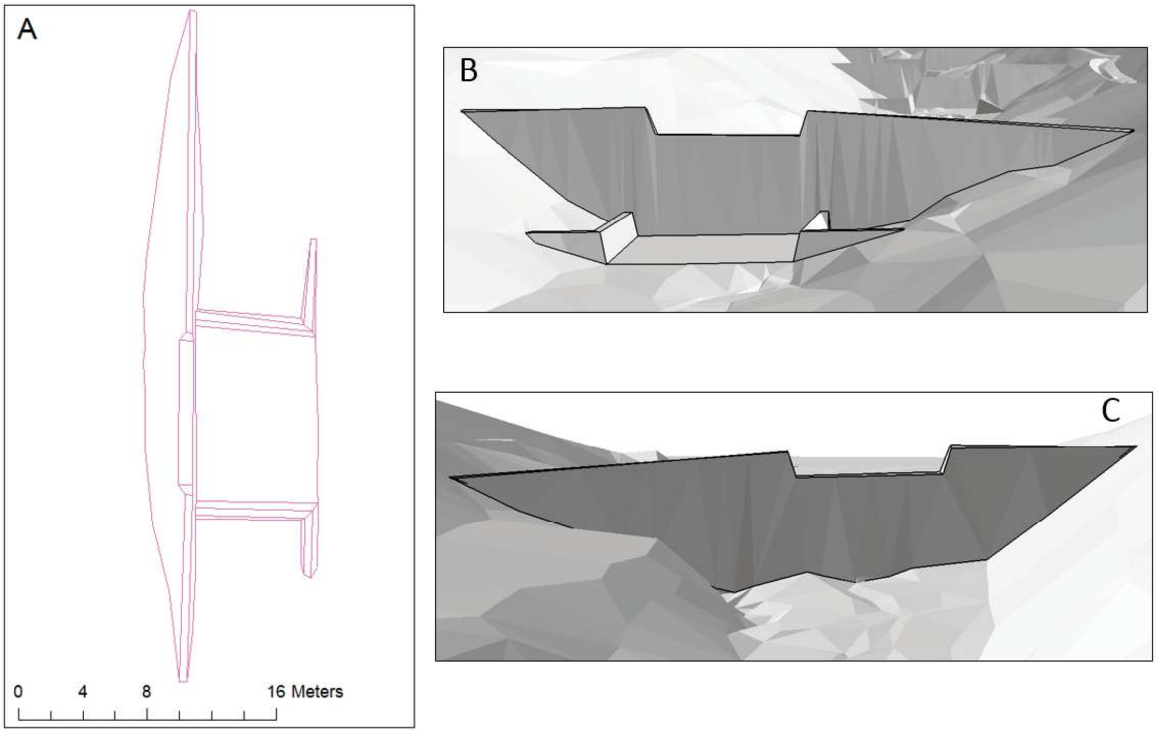

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,Q RUGHU WR UHDOL]H WKH GLJLWDO 7KH GHOLQHDWLRQ PRGHO RI WKH YDOOH\ WKH H[LVWLQJ LQWHUSRODWHG VWRUHG LQ 7,1 UDVWHU IRUPDW ZDV WXUQHG LQWR 1HWZRUN GLJLWDO PDS SURGXFW ZDV VFDQQLQJ DQG JHRUHIHUHQFLQJ DWLRQ 6WHUHRJUD FRQWDLQLQJ HOHYDWLRQ FRQWRXU OLQHV PDGH XVLQJ JURXQG $UF*,6 HGLWLQJ WRROV LGHQWLILHG RQ WKH PDS DQG PHDVXU

WR WKH ODFN RI RULJLQDO GDWD RI WKH PRQLWRULQJ WKH IDFW WKDW WKH VXUYH\ ZDV

0HWKRGV IRU FUHDWLQJ '70 IRU

)RU FUHDWLQJ '70 IRU D /HLFD 7& WRWDO VWDWLRQ DQG SULVP ZDV XVHG ZHUH FDUULHG RXW XVLQJ UDGLDO UHJLRQ ZLWK D OHQJWK RI IUHTXHQF\ RI 0+] RU PHWHUV HTXLSSHG ZLWK IXOO UHDU [ULJKW GLDPHWHU PP 0LQLPXP P)LHOG RI YLHZ LV GHJUHH KDV DQ RSHQLQJ RI P WR P WKH HOHFWURQLF OHYHO WKH VXUIDFH

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5HVXOWV

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+RUL]RQWDO G\QDPLFV

+ROWRQ LQ 3LHWUR 7&6 WUXVWLQJ ZKHUH SVHXGR SDUDOOHO

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WULSOH

6SDWLDO G\QDPLFV PHWHUV GHSOR\HG RQ D VTXDU 7DEOH

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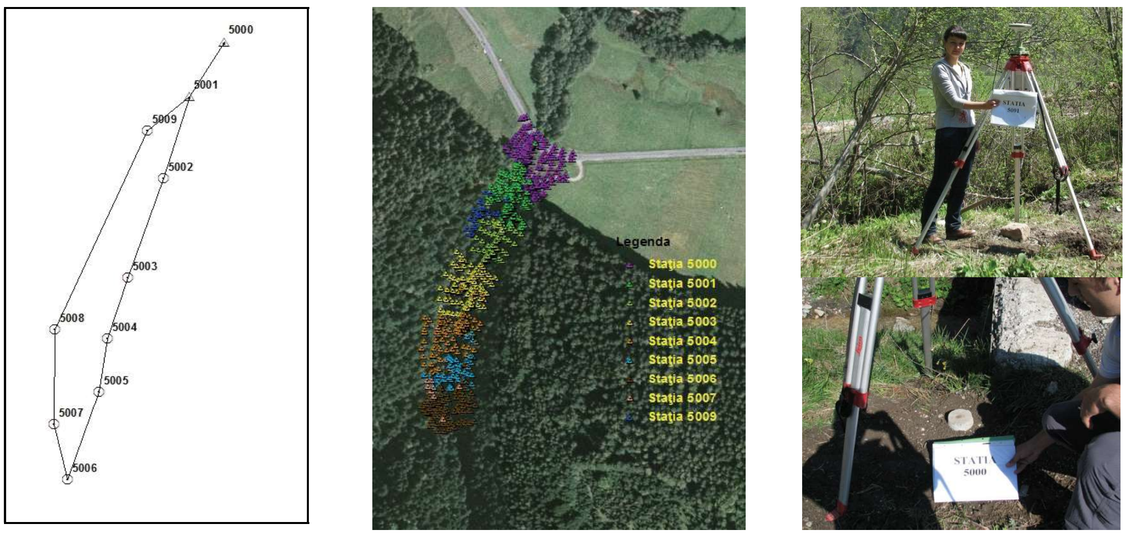

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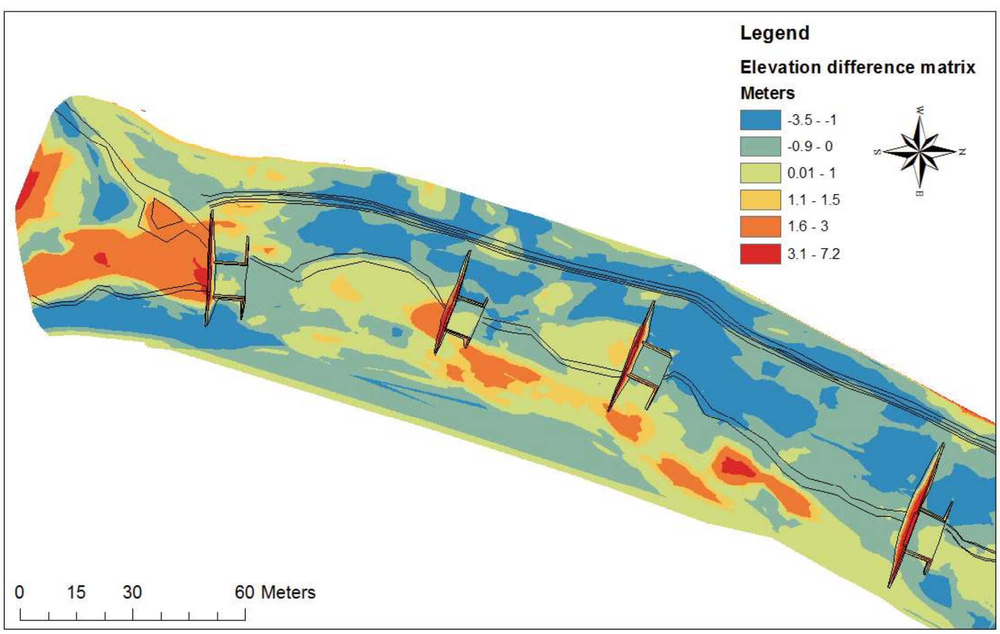

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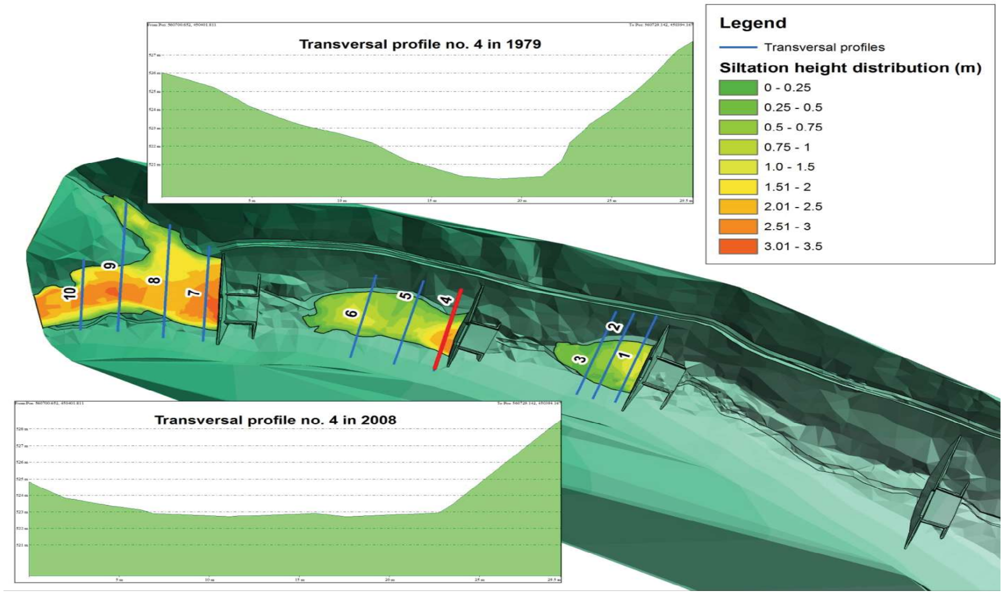

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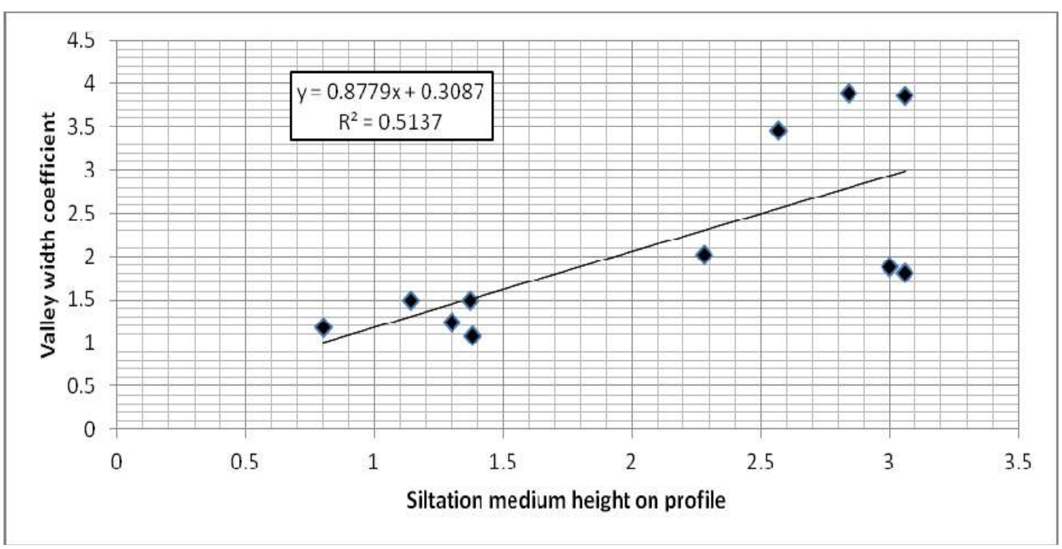
Profile number (1)	*Valley width in 1979 (2)*	*Valley width in 2008 (3)*	*Valley width coefficient (3/2)*	*Valley width difference (3-2)*	*Siltation medium height on profile*



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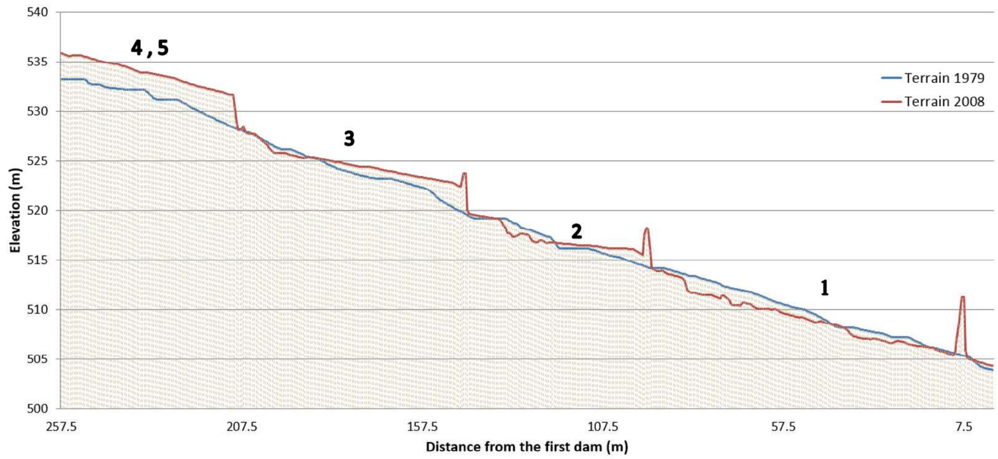

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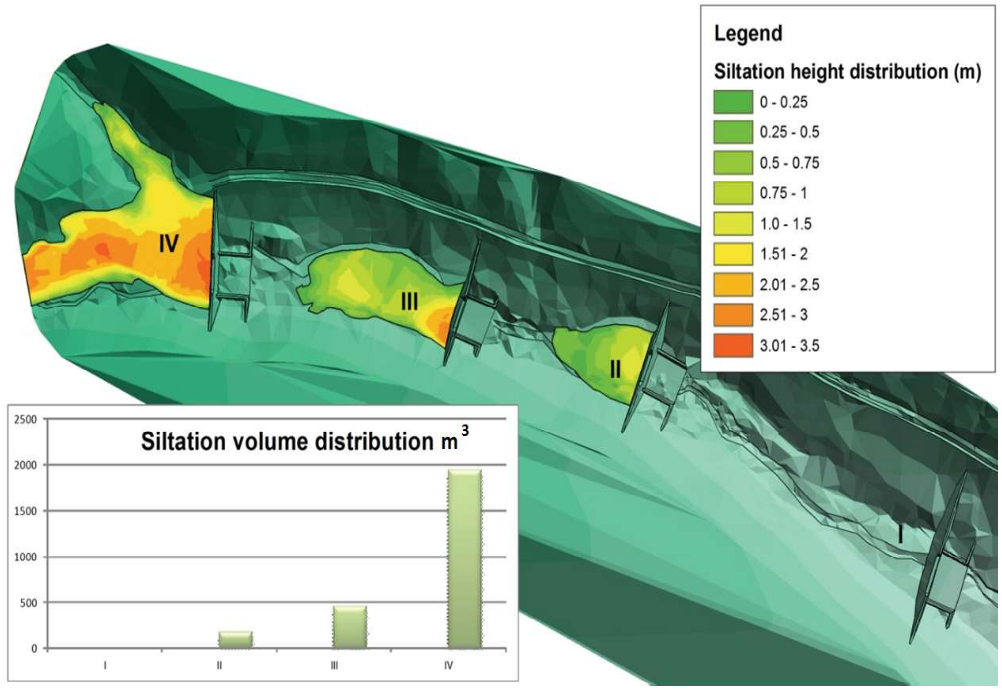
Profile number	*Length (meters)*	*Slope – 1979 (degrees)*	*Slope – 2008 (degrees)*	*Slope difference (degrees)*



)LJ &DOFXODWHG VHGLPHQWV ± VLOWDWLRQ GLVWULEXWLRQ]R

7DEOH 7KH YROXPH RI VLOWDWLRQ FDOFXODWHG RQ UDVWHU GLIIHUHQFH

Siltation number	*Volume (cubic meters)*	*Upstream height of the dam (meters)*	*Perimeter (meters)*	*Area (square meters)*
	7RWDO YROXPH			7RWDO DUHD

Conclusions

This activity of monitoring is developing in hard conditions and is conditioned by historical data which in most of cases are lost in time. As shown in the introduction there are few studies in our country and worldwide on torrential [illegible] dynamics where torrent contr[illegible] placed. Within this study we w[illegible] horizontal, vertical and sp[illegible] occurred due to placing torr[illegible] on Vidas Valley. Some of the results [illegible] hypothesis easy to understand like the direct correlation between increase of valley width and the height of siltation or the reduction of valley longitudinal slope due to the siltation. There are still some results which show that [illegible] needs to be continued and de[illegible] high slope of siltation or no s[illegible] first dam.

From the presented study [illegible] first dam rises a question mark: Why this dam did not have siltation upstream? What were the causes? The research conducted so far reveals some aspects that can be emphasized as future research hypothesis. One aspect is that the dam has [illegible] siltation due to the underestimation of siltation [illegible] last dam. This situation crea[illegible] larger accumulation of siltation upstream the last dam and diminished the erosional force of the valley. Another aspect it can be related to the river bank erosion. If the riverbanks which were afforested for protection did not produce to many sediments the situation lead to a missing siltation upstream the last dam.

This study shows how complex are the actions in nature and how difficult it is to predict the role of the drivers in producing these siltation patterns.

Acknowledgements

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