

**Evaluasi Lahan Untuk Pengembangan  
Teknik Konservasi Tanah dan Air  
( Studi Kasus : Lahan Kering Sub DAS Sapi Kabupaten Banjarnegara )**

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**INTISARI**

Pertanian lahan kering palawija di Sub DAS Sapi menghadapi kendala yaitu sebagai sumber penghidupan tetapi luas lahannya sempit ( $< 1$  hektar) dan produktivitasnya rendah. Konservasi tanah merupakan suatu bentuk teknologi yang bertujuan untuk menjaga produktivitas lahan, dimana dalam penerapannya membutuhkan perencanaan yang matang. Penelitian ini bertujuan untuk mengetahui tingkat kesesuaian teknik konservasi tanah dan air yang ada di Sub Das Sapi dan kemungkinan pengembangannya.

Unit lahan ditentukan dengan cara tumpang susun peta kelerengan, jenis tanah, kedalaman solum, penggunaan lahan dan peta administrasi. Analisis evaluasi lahan menggunakan metode *matching* dan *scoring*. Evaluasi sosial ekonomi bersifat kualitatif, meliputi; tingkat pengetahuan, kemauan dan kemampuan petani Asumsi yang digunakan yaitu daerah penelitian luas sehingga hasil yang didapat berupa informasi umum dan bersifat kualitatif.

Hasil evaluasi lahan aktual teras bangku menyatakan bahwa wilayah sub DAS Sapi dapat digolongkan dalam 4 kelas kesesuaian yaitu  $S_1$  seluas 62.27 ha (0.22%),  $S_2$  8384.83 ha (29.43%),  $S_3$  8564.74 ha (30.06%) dan kelas  $N_1$  seluas 11479.03 ha (40.29%). Evaluasi aktual *strip cropping* menghasilkan kelas  $S_1$  seluas 1175.71 ha ( 4.13%),  $S_2$  10327.45 ha (36.25%),  $S_3$  3923.04 ha (13.77%),  $N_1$  13045.01 ha (45.79%) dan kelas  $N_2$  seluas 19.66 ha (0.07%). Evaluasi aktual *contour cropping* menghasilkan kelas  $S_1$  seluas 69.62 ha (0.24%),  $S_2$  10091.32 ha (35.42%),  $S_3$  5188.65 ha (18.21%) dan kelas  $N_1$  seluas 13141.28 ha (46.12%). Sedangkan hasil evaluasi aktual *agroforestry* menghasilkan kelas  $S_2$  seluas 2881.22 ha (10.11%),  $S_3$  16739.28 ha (58.755),  $N_1$  1284.53 ha (4.51%) dan kelas  $N_2$  seluas 7585.84 ha (26.63%).

Perbaikan terhadap kelerengan, tingkat bahaya erosi dan permeabilitas tanah menghasilkan kenaikan kelas satu tingkat lebih tinggi. Kelas  $S_1$  bagi teras bangku meningkat 1.48% (420.27 ha),  $S_2$  13.59% (3872.96 ha) dan kelas  $S_3$  meningkat 25.22% (7185.8 ha). Kelas  $S_1$  bagi *strip cropping* meningkat 3.45% (983.78 ha),  $S_2$  0.62% (177.94 ha), dan kelas  $S_3$  meningkat 41.71% (11883.29 ha). Kelas  $S_1$  bagi *contour cropping* meningkat 4.48% (1277.76 ha),  $S_2$  0.58% (166.09 ha) dan kelas  $S_3$  meningkat 41.06% (11697.43 ha). Sedangkan kelas  $S_2$  bagi *agroforestry* meningkat 5.55% (1582.55 ha) dan kelas  $S_3$  turun 1.05% (298.02 ha).

*Kata Kunci : Evaluasi Lahan, Konservasi Tanah dan Air, Kelas Kesesuaian Lahan, Teras Bangku, Strip Cropping, Contour Cropping, Agroforestry.*

**LAND EVALUATION TO EXTENT SOIL AND WATER  
CONSERVATION TECHNIQUE  
(Case Study : Dry Land Of Sapi Subwatershed at Banjarnegara District)**

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**ABSTRACT**

The dry land agriculture system at Sapi subwatershed is facing a trouble as the dominant source for the people there while the lands are too small (less than one the productivity). Soil conservation is the technology to maintain the productivity of the land and the application of the technology needs very good plan. The aid of this study was to assess the level of suitability of the soil and water conservation technique available in the watershed and the probability of its extensification.

Land unit were delineated by overlaying the map of slop, soil clasification, solum depth, land use, and the map of administration. The analysis of land evaluation applied matching and scoring methodes. Socio-economic evaluation was qualitatif include the level of knowledge, the level of willingness and ability of the people there. The assumption used in this research that was the study area are very wide and result informations which is general and qualitative.

The actual land evaluation of the bank terrace exposed that Sapi subwatershed can be classified into four suitability classes that are  $S_1$  about 62.27 ha ( 0.22% ),  $S_2$  about 8384.83 ha (29.43%),  $S_3$  about 8564.74 ha (30.06%),  $N_1$  about 11479.03 ha (40.29%). The actual evaluation of the strip cropping resulted  $S_1$  category about 1175.71 ha (4.13%),  $S_2$  about 10327.45 ha (36.25%),  $S_3$  about 3923.04 ha (13.77%),  $N_1$  about 13045.01 ha (45.79%) and  $N_2$  about 19.66 ha (0.07%). The actual evaluation of the contour cropping resulted  $S_1$  about 69.62 ha (0.24%),  $S_2$  about 10091.32 ha (35.42%),  $S_3$  about 5188.65 ha (18.21%), and  $N_1$  about 13141.28 ha (46.12%). And actual evaluation of agroforestry resulted  $S_2$  2881.22 ha (10.11%),  $S_3$  about 16739.28 ha (58.75%),  $N_1$  about 1284.53 ha (4.51%) and  $N_2$  about 7585.84 ha (26.63%).

The improvement of the slope, erotion level, and land permeability resulted a class of one a head higher.  $S_1$  category for the bank terrace increased up to 1.48% (420.27 ha),  $S_2$  increased up to 13.59% (3872.96 ha),  $S_3$  increased up to 25.22% (7185.8 ha). The class of  $S_1$  under the strip cropping increased up to 3.45% (983.78 ha),  $S_2$  increased up to 0.62% (177.94 ha) and  $S_3$  increased up to 41.71% (11883.29 ha). The class of  $S_1$  under contour cropping increased up to 4.48% (1277.76 ha),  $S_2$  increased up to 0.58% (166.09 ha), and  $S_3$  increased 41.06% (11697.43 ha). While the class of  $S_2$  under agroforestry increased up to 5.55% (1582.55 ha) and  $S_3$  decreased down to 1.5% (298.02 ha).

*Key words : Land Evaluation, Soil and Water Conservation, Suitability Classes of Land, Bank Terrace, Strip Cropping, Contour Cropping, Agorofestry.*