

**KOMPARASI KEBERLANJUTAN SAWAH SUBAK  
DI PERDESAAN DAN PERKOTAAN BERBASIS EVALUASI LAHAN  
(Kasus di Desa Mengesta, Kec. Penebel, Kab. Tabanan dan  
Desa Peguyangan Kaja, Kec. Denpasar Utara, Kota Denpasar Bali)**

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**ABSTRAK**

Subak di perdesaan dan perkotaan menunjukkan perbedaan morfologi, teknik pertanian, dan masyarakat petani. Studi komparatif dilakukan pada subak perdesaan Wongaya Betan, Kedampal, dan Piling di Desa Mengesta dan subak perkotaan Dalem, Pakel I, dan Pakel II di Desa Peguyangan Kaja. Tujuan penelitian adalah (1) menemukan kondisi kesesuaian sawah subak, (2) mengidentifikasi wujud kontribusi masyarakat subak dalam menjamin keberlanjutan sistem subak, dan (3) mengidentifikasi secara komparatif keberlanjutan subak perdesaan dan perkotaan.

Pengumpulan data berupa survei evaluasi kesesuaian lahan semidetil dengan *stratified random sampling*, uji laboratorium tanah, wawancara mendalam, dan observasi partisipasi. Pengolahan data berupa klasifikasi kesesuaian aktual, transkripsi wawancara, dan klasifikasi kesesuaian potensial. Analisis secara deskriptif kualitatif dengan pendekatan komparasi keruangan.

Hasil penelitian menunjukkan bahwa (1) kesesuaian lahan subak di perdesaan dan perkotaan sebagai sawah irigasi secara aktual terdiri atas kelas cukup sesuai (S2) dan sesuai marginal (S3) dengan faktor pembatas media perakaran, retensi hara, dan ketersediaan hara, namun bagi subak perkotaan ditambah dengan faktor ketersediaan air dan kemudahan pengolahan; (2) wujud kontribusi bagi keberlanjutan sistem subak ditunjukkan dari regenerasi petani, koordinasi kelembagaan, penyelesaian konflik, dan dinamika pemanfaatan lahan yang dikontrol oleh masyarakat subak dengan situasi kelembagaan dan keanggotaan yang lebih kondusif pada subak perdesaan; serta (3) subak di perdesaan merupakan subak berkelanjutan berdasarkan potensi lingkungan fisik kesesuaian lahan potensial pada kelas cukup sesuai (S2) hingga sangat sesuai (S1) dan potensi lingkungan sosial berupa partisipasi tenaga kerja muda, keberlangsungan upacara subak massal, penerapan pertanian organik, dan kontrol lembaga subak dalam mencegah alih fungsi sawah, sementara subak di perkotaan merupakan subak yang berkelanjutan dengan tantangan tinggi berupa kesesuaian lahan potensial pada kelas sesuai marginal (S3) hingga cukup sesuai (S2), preferensi pelaksanaan upacara subak secara individual, perkembangan sektor nonpertanian, dan pencemaran lingkungan.

**Kata kunci:** keberlanjutan subak, sawah irigasi, masyarakat subak, perdesaan, perkotaan

**A COMPARATIVE STUDY ON THE SUSTAINABILITY  
OF RURAL AND URBAN *SUBAK* BASED ON LAND EVALUATION  
(Cases in Mengesta Village, Penebel Sub-district, Tabanan Regency and  
Peguyangan Kaja Village, North Denpasar Sub-district, Denpasar City, Bali)**

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**ABSTRACT**

*Subak* in rural and urban areas show differences in morphology, agricultural technique, and community. A comparative study was done in the rural *subak* of Wongaya Betan, Kedampal, and Piling in Mengesta, and the urban *subak* of Dalem, Pakel I, and Pakel II in Peguyangan Kaja. This research aimed to (1) find the land suitability of *subak* rice field, (2) identify the contribution of *subak* community to ensure its sustainability, and (3) describe the sustainability of *subak* in rural and urban areas.

The data collection was based on semidetail land evaluation techniques involving stratified random sampling, soil laboratory test, in-depth interviews, and participant observation. The data processing included the classification of actual and potential land suitability and interview transcription. A qualitative descriptive analysis was used based on spatial comparison approach.

The results showed that: (1) the actual suitability of *subak* land as rice fields in rural and urban areas were classified as moderately (S2) and marginally suitable (S3) with limiting factors of rooting media, nutrient retention, and nutrient supply, followed by water availability and ease of tillage for urban *subak*; (2) the contribution to ensure *subak* sustainability was shown from farmer regeneration, institutional coordination, conflict resolution, and land use dynamics controlled by the *subak* community, in which the rural *subak* showed more conducive situation; and (3) rural *subak* was considered *sustainable* due to its supporting physical aspect of moderately (S2) to highly suitable (S1) potential land suitability and social aspect of youth participation, the continuity of collective *subak* ceremony, the organic farming application, and the strong gesture to prevent *subak* land conversion, whilst urban *subak* was considered *sustainable with high-level challenges* such as marginally (S3) to moderately suitable (S2) potential land suitability, the preference of holding *subak* ceremony individually instead of collectively, the development of non-agricultural sectors, and environmental pollution.

**Keywords:** *subak sustainability, irrigated rice fields, subak community, rural area, urban area*