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ENVIRONMENTAL GEOLOGY OF CHANGWAT BURIRAM

Miss Pannipa Tian

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Science in Geology

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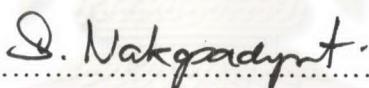
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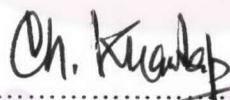
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การศึกษาระดับวิทยาศาสตร์ทางธรณีวิทยาสภาวะแวดล้อมของจังหวัดบุรีรัมย์มีจุดมุ่งหมายเพื่อวิเคราะห์ข้อมูล
ทางด้านกายภาพต่างๆ โดยพิจารณาร่วมกับข้อจำกัดทางด้านเศรษฐกิจและสังคม ปัญหาหลัก
ทางด้านธรณีสภาวะแวดล้อมของจังหวัดบุรีรัมย์ ได้แก่ ขาดแหล่งน้ำเพื่อการอุปโภคบริโภค น้ำ
บาดาลมีคุณภาพต่ำกว่ามาตรฐานน้ำดื่ม ดินเค็ม และขาดพื้นที่ทึ่งขยะที่ถูกสูบน้ำมันย ดังนั้นใน
การศึกษานี้ จึงมีวัตถุประสงค์อีกประการเพื่อตอบปัญหาระดับวิทยาศาสตร์ทางธรณีวิทยาสภาวะแวดล้อมเบื้องต้นดังกล่าว เช่น
พื้นที่แหล่งน้ำและพื้นที่ทึ่งขยะที่เหมาะสม

การศึกษาและวิเคราะห์ข้อมูลทางกายภาพและข้อมูลเศรษฐกิจและสังคม รวมไปถึง
แผนพัฒนาจังหวัดบุรีรัมย์ ได้นำระบบสารสนเทศทางภูมิศาสตร์ (Geographical Information System) มาใช้ร่วมกับซอฟแวร์ดังนี้ Arc/View, Arc/Info และ Surfer และมีข้อเสนอแนะ
หลังจากการวิเคราะห์ข้อมูลดังกล่าว ผลการศึกษาพบว่าคุณภาพน้ำบาดาลของพื้นที่ศึกษามีคุณภาพ
ต่ำกว่ามาตรฐานน้ำดื่ม ดังนั้นในบางพื้นที่ของจังหวัดควรจะให้น้ำผิดคน เช่น อำเภอสระแก้ว อำเภอกระสัง
อำเภอหัวยราช และกิ่งอำเภอบ้านค่าน นอกจากนั้นผลการศึกษาบ่งแสดงพื้นที่ทึ่งขยะที่
เหมาะสมว่า อยู่ในพื้นที่อำเภอกระสัง อย่างไรก็ตาม แผนที่ที่แสดงในการศึกษารั้งนี้เป็นแผนที่
แสดงข้อมูลระดับภูมิภาค ดังนั้นควรมีการศึกษาระดับท้องถิ่นในรายละเอียดต่อไป

ศูนย์วิทยทรัพยากร จุฬาลงกรณ์มหาวิทยาลัย

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This research aims at acquiring, evaluating the physical environment conditions and analyse them together with the socio-economic conditions. The main environmental problems in Changwat Buriram are a lack of water supply, low quality groundwater, high salinity in soil, and no sanitary waste disposal area. Thus, this study is also aimed to answer primarily these environmental problems in terms of spatial area evaluation, for example, where is the suitable area of the water resources, the waste disposal site.

The acquisition and evaluation of physical environment and socio-economic information including the development plans were carried out in this research using the Geographical Information System (GIS) as a tool on the personal computer (PC) and the software of Arc/View, Arc/Info, and Surfer. All available geological data were collected and they were analysed in relation to geological perspectives. Afterthat, some recommendations were prepared based on those analysed data. As a result, for example, this research revealed that groundwater condition in the study area contains inadequate chemical contents from standard drinking water. Thus, surface water plan is recommended in some areas, such as, Amphoe Satuk, Amphoe Krasang, Amphoe Huai Rat, and King Amphoe Ban Dan. Moreover, the result of geological analysis also shows that the suitable waste disposal site is recommended at the area around Amphoe Krasang. However, all maps presented in this research were demonstrated the entire area in a regional scale, thus, in some specific circumstances, further detailed study in a local scale should be provided.

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