

ABSTRAK

E-Warong (Elektronik warung gotong royong) adalah program implementasi otonomi yang sedang dikembangkan dalam bidang perekonomian oleh Kementerian Sosial Republik Indonesia untuk seluruh daerah di Indonesia. Pada pelaksanaannya, Keberadaan E-Warong dikhususkan bagi warga yang menerima BPNT (Bantuan Pangan Non Tunai) dengan uang per bulan sebesar Rp 110 ribu untuk dibelanjakan bahan makanan pokok beras dan telur. Kabupaten Kulon Progo merupakan salah satu kabupaten yang menjalankan program E-Warong ini. Dalam menentukan pendistribusian beras ke E-Warong ataupun E-Warong terhadap warga penerima BPNT dilakukan dengan cara perundingan antara penanggung jawab masing-masing E-Warong dan pemasok. Namun belum adanya peta persebaran dan jangkauan wilayah E-Warong membuat belum dapat diketahui mengenai persebaran E-Warong, jarak jangkauan fasilitas E-Warong terhadap lokasi rumah tangga penerima BPNT dan visualisasi jarak masing-masing pemasok ke E-Warong. Maka dari itu, peneliti dalam skripsi ini memetakan persebaran E-Warong dan memvisualisasikan jangkauan jarak dan waktu tempuh antara pemasok, warga penerima BPNT dan E-Warong di Kabupaten Kulon Progo dengan memanfaatkan Sistem Informasi Geografis.

Pembuatan peta pada penelitian ini menggunakan data spasial seperti: batas administrasi wilayah, jaringan jalan, sebaran lokasi E-Warong, sebaran lokasi pemasok beras dan beberapa sampel lokasi rumah warga penerima BPNT dari lima sampel E-Warong di Kabupaten Kulon Progo. Batas administrasi dan jaringan jalan diperoleh dari situs *GeoPortal* Provinsi D.I.Yogyakarta. Sebaran lokasi E-Warong, lokasi pemasok beras dan lokasi rumah warga penerima BPNT didapatkan dengan pengukuran langsung di lapangan menggunakan perangkat lunak *Mobile Topographer* yang terpasang di *smartphone*. Data atribut berupa data alamat E-Warong, pemasok beras dan rumah warga penerima BPNT di Kabupaten Kulon Progo didapatkan dari Dinas Sosial Pemberdayaan Perempuan dan Perlindungan Anak Kabupaten Kulon Progo dan data foto didapatkan dari pengambilan langsung di lapangan. Data tersebut kemudian diolah pada *software ArcGIS* untuk dibuat menjadi peta sebaran E-Warong dan analisis visualisasi jangkauan jarak dan waktu dilakukan dengan analisis jaringan menggunakan operasi *OD Cost Matrix*.

Hasil dari penelitian ini adalah visualisasi persebaran E-Warong yang menunjukkan bahwa persebaran E-Warong di Kabupaten Kulon Progo sudah merata apabila dilihat dari kepadatan penduduk di setiap daerah tetapi belum merata secara spasial. Jarak dan waktu tempuh yang dibutuhkan bervariasi untuk masing-masing pemasok ke E-Warong, rata-rata jarak yang dilalui pemasok ke E-Warong adalah 11.284,213 meter dan rata-rata waktu tempuh yang dilalui pemasok ke E-Warong adalah 20 menit. Jangkauan jarak dari sampel lokasi rumah tangga penerima BPNT untuk sampel lima E-Warong menunjukkan bahwa rata-rata menempuh <2,5 km. Hasil tersebut nantinya diharapkan dapat menjadi pertimbangan kepada Pemda Kabupaten Kulon Progo apabila akan dilakukan pengembangan E-Warong.

Kata kunci: Peta, E-Warong, BPNT, *Network Analyst*, *OD Cost Matrix*.

ABSTRACT

E-Warong (Elektronik Warung Gotong Royong) is implementation program which is being developed in economy sector by the Ministry of Social Services Republic Indonesia for all regions in Indonesia. In the implementation, the existence of E-Warong is only for BNPT (Non-cash Food Aid) recipient with Rp 110.000 each month. It is spent to buy staple food such as rice and eggs. Kulon Progo Regency is one of the districts that runs the E-Warong program. Negotiation between responsible person of each E-Warong and supplier is done to determine the distribution of rice to E-Warong or from E-Warong to BNPT recipient. However, there is no distribution map and E-Warong regional reach, it makes the exact distribution of E-Warong is un-known. Not only has that, the range of E-Warong facilities with the location of the BNPT recipient and visualization distance of each supplier to E-Warong also being the cause of no distribution map and E-Warong regional reach. So that, this research mapping the distribution of E-Warong and visualizing distance range and time taken by supplier, BNPT recipient, and E-Warong in Kulon Progo Regency using Geographic Information System.

Spatial data was used in making the map for the research. The spatial data were regional administrative boundaries, road system, distribution of E-Warong locations, distribution of rice supplier locations and several houses locations of BPNT recipients from four E-Warong samples in Kulon Progo Regency. Administrative and road system boundaries were obtained from the GeoPortal site of D.I.Yogyakarta Province. The distribution of E-Warong locations, location of rice suppliers and location of houses which received BPNT were obtained by direct measurement in the field using Mobile Topographer software installed on the smartphone. The attribute data in the form of E-Warong address, rice suppliers and houses locations of BPNT recipients in Kulon Progo Regency were obtained from the Social Empowerment of Woman and Child Protection Office in Kulon Progo Regency and the photos was obtained in the field directly. In the end, the data processed in a software namely ArcGIS. From the ArcGIS, E-Warong distribution maps, visualization analysis of distance. For the time, it was analyzed by using OD Cost Matrix operation.

The final result of this study was a visualization of the distribution of E-Warong which shows that the distribution of E-Warong in Kulon Progo Regency is evenly distributed when viewed from population density in each region but not spatially evenly distributed. The distance and travel time required varies for each supplier to E-Warong, the average distance traveled by suppliers to E-Warong is 11,284.213 meters and the average travel time is taken by suppliers to E-Warong is 20 minutes. The distance from the BPNT recipient household to the fifth sample of E-Warong shows that on average it takes <2.5 km. This result is expected to be a consideration for the Regional Government of Kulon Progo Regency if E-Warong is to be developed.

Keywords: Map, E-Warong, BNPT, Network Analyst, OD Cost Matrix