เอกสารอ้างอิง

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ภาคผนวก ก.

ลำดับตัวอย่างของแผนที่ต่าง ๆ ในระบบข้อมูล

ก. 1 รหัสแผนที่ของ Actual scores และ Normalized scores

การวิเคราะห์ครั้งที่	เนื้อหาของตัวประกอบที่นำมาวิเคราะห์	แผนที่ หน้า	รหัสแผนที่ของ Actual scores	แผนที่ หน้า	รหัสแผนที่ของ Normalized scores
1	ความลาดชันของพื้นที่	๑๗๙	MAS-1	๑๘๐	MNS-1
2	การใช้ที่ดินในปัจจุบัน	๑๘๑	MAS-2	๑๘๒	MNS-2
3	ชุดดินทางการเกษตร	๑๘๓	MAS-3	๑๘๔	MNS-3
4	พื้นที่น้ำท่วม	๑๘๕	MAS-4	๑๘๖	MNS-4
5	ดินที่เหมาะสมสำหรับข้าว	๑๘๗	MAS-5	๑๘๘	MNS-5
6	ดินที่เหมาะสมสำหรับพืชไร่	๑๘๙	MAS-6	๑๙๐	MNS-6
7	การเข้าถึงแหล่งน้ำ	๑๙๑	MAS-7	๑๙๒	MNS-7
8	การเข้าถึงเส้นทางคมนาคม	๑๙๓	MAS-8	๑๙๔	MNS-8
9	ความหนาแน่นประชากร	๑๙๕	MAS-9	๑๙๖	MNS-9
10	การวางแผนเพาะปลูกในอนาคต	๑๙๗	MAS-10	๑๙๘	MNS-10

ก.2 รหัสแผนที่ของ PSA.MAP และ GRAY.MAP

การวิเคราะห์ครั้งที่	เนื้อหาของตัวประกอบที่นำมาวิเคราะห์	แผนที่ หน้า	รหัสแผนที่ของ PSA.MAP	แผนที่ หน้า	รหัสแผนที่ของ GRAY.MAP
1	ความลาดชันของพื้นที่	๒๐๐	P1-1	๒๑๔	G1-1
2	การใช้ที่ดินในปัจจุบัน	๒๐๑	P1-2	๒๑๕	G1-2
3	ชุดดินทางการเกษตร	๒๐๒	P1-3	๒๑๖	G1-3
4	พื้นที่น้ำท่วม	๒๐๓	P1-4	๒๑๗	G1-4
5	ดินที่เหมาะสมสำหรับข้าว	๒๐๔	P1-5	๒๑๘	G1-5
6	ดินที่เหมาะสมสำหรับพืชไร่	๒๐๕	P1-6	๒๑๙	G1-6
7	การเข้าถึงแหล่งน้ำ	๒๐๖	P1-7	๒๒๐	G1-7
8	การเข้าถึงเส้นทางคมนาคม	๒๐๗	P1-8	๒๒๑	G1-8
9	ความหนาแน่นประชากร	๒๐๘	P1-9	๒๒๒	G1-9
10	การวางแผนเพาะปลูกในอนาคต	๒๐๙	P1-10	๒๒๓	G1-10
11	ตัวประกอบทางกายภาพ	๒๑๐	P2-1	๒๒๔	G2-1
12	ตัวประกอบทางเศรษฐกิจและสังคม	๒๑๑	P2-2	๒๒๕	G2-2
13	ตัวประกอบทุกด้านที่เกี่ยวข้อง	๒๑๒	P3-1	๒๒๖	G3-1
14	ศักยภาพของพื้นที่ที่ควรพัฒนาด้วยการชลประทาน	๒๑๓	P4-1	๒๒๗	G4-1

ภาคผนวก ข.

โปรแกรมคอมพิวเตอร์และตัวอย่างข้อมูล (input data)

```
C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
C     I   THIS PROGRAM IS CALLED 'PSA.MAP'.
C     II  PROGRAMER NR. SUTHICHAI SAENGNARK : B 316828
C     III DEPARTMENT OF SURVEY ENGINEERING, FACULTY OF ENGINEERING, CHULA. UNIV.
C     IV  UNDER THE SUPERVISION OF SUPERVISOR ASS. PROF. DR. WICHA JIWALAI.
C     V   THE PROGRAM IS WRITTEN TO RUN 'A LAND INFORMATION SYSTEM FOR
C         LAND REFORM PROJECTS'.
C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
C
C       MAIN PROGRAM (COMPOSED OF PART A & PART B)
C
CUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCU
C       GIVEN :
C             AA,A1 = INPUT SCORES.
C             ACPER = ACCUMULATIVE PERCENT.
C              ACTS = 'ACTUAL SCORES'.
C               CAT = CATEGORY NUMBER (0-9)
C              CHAR = CHARACTER OF 0-9
C             CLASS = CLASSIFIED POTENTIALS.
C              CODF = CODE NUMBER FOR EACH FACTOR.
C              COMP = COMPOSITE SCORES.
C           CS1,CS2 = CODE OF SURFACE.
C           CTO,CTP = CATEGORISED POTENTIAL.
C              FREQ = FREQUENCIES FOR EACH CATEGORY.
C               FWT = INITIAL INPUT WEIGHTS.
C             KD,KK = LONGITUDE VALUES.
C                LL = LATITUDE VALUES.
C               LOW = NUMBER OF ROWS.
C                 N = NUMBER OF FACTORS.
C              NAME = NAME OF FACTORS.
C               NHI = THE HIGHEST CATEGORY NUMBER.
C              NLOW = THE LOWEST CATEGORY NUMBER.
C           NM1,NM2 = CODE NAMES OF FACTORS.
C                NR = LOW CATEGORY NUMBER TO  BE USED WITH THE HIGHEST.(NR-NHI)
C              NSUB - SUBSCRIPTION NUMBER.
C              OPTA = OPTION FOR ACTUAL SCORES PRINTOUTS.(Y OR N)
C              OPTN = OPTION FOR NORMALISED SCORES PRINTOUTS.(Y OR N)
C              OPTP = OPTION FOR CATEGORISED POTENTIALS PRINTOUTS.(Y OR N)
C               PAC = PLANNING CODE.
C               PER = PERCENT OF EACH CATEGORY TO TOTAL.
C              PERA = ASSIGNED ACPER, TO BE PRINTOUT.
C               RNK = RANKED WEIGHTS.
C              SNOR = 'NORMALISED SCORES'.
C               UWT = MANIPULATED WEIGHTS.
CUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCU
C
C       MAIN PROGRAM : PART A
C       ACTUAL, NORMALISED & COMPOSITE SCORES.
C
CUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCU
0001          DOUBLE PRECISION CTP(39,33),A,B,C,D,CS1(20),CS2(20)
            * ,ACTS(4),SNOR(4),PER(10),PERA(10)
0002          DOUBLE PRECISION E,ALPHA(10),CTO(39,33)
0003          DIMENSION  AA(39,33),A1(39,33),COMP(39,33),
```



```
              1          NM1(20),NM2(20),FWT(20),NAME(20,20),
              2          PAC(2),RNK(20),LOW(39),CHAR(10),FREQ(100)
              3                  ,ICAT(39,33),UWT(20),KD(6,33),KK(6,34),LL(40)
0004          DIMENSION ZF(9),Z0(9),Z1(9),Z2(9),Z3(9),Z4(9),Z5(9),Z6(9),
            *           Z7(9),Z8(9),Z9(9),ZW(39,33,9)
0005          INTEGER CODF(20),CAT(10)
0006          DATA CHAR/'000','111','222','333','444','555',
            *                 '666','777','888','999'/
0007          DATA A,B,C,D/' *  * ','      ',':::','   '/
0008          DATA E,F,G/'+    ','+','S  '/
0009          DATA ALPHA/'+ 00 ','+ 11 ','+ 22 ','+ 33 ','+ 44 ',
            *            '+ 55 ','+ 66 ','+ 77 ','+ 88 ','+ 99 '/
0010          DATA S0,S1,S2,S3,S4,S5,S6,S7,S8,S9/'...',',,,','===','+++',
            * '000','---',':::','XXX','III','HHH'/
0011          DATA S10,S11,S12/':::','aaa','000'/
0012          DATA S13/'|||'/
0013          IR=1
0014          IW=3
0015          READ (IR,4)PAC
0016          READ (IR,5)(ACTS(I),I=1,4),(SNOR(I),I=1,4)
0017          READ (IR,6)NM1
0018          READ (IR,7)(CS1(I),I=1,20),(CS2(I),I=1,20)
0019          READ (IR,8)N
0020        4 FORMAT(2A4)
0021        5 FORMAT(4A5)
0022        6 FORMAT(A4)
0023        7 FORMAT(A5)
0024        8 FORMAT(I2)
0025          DO 120 I=1,6
0026          READ (IR,59)(KD(I,J),J=1,33)
0027      120 CONTINUE
0028          DO 55 I=1,6
0029          READ (IR,59)(KK(I,J),J=1,34)
0030       59 FORMAT(34I1)
0031       55 CONTINUE
0032          READ (IR,57)LL
0033       57 FORMAT(8(I7,3X))
0034          WRITE(IW,9)
0035        9 FORMAT(1H0,'INPUT WEIGHTING SCORES,ONE BY ONE, IN F6.2
            * (0.00-100.00)')
0036          READ (IR,10)(FWT(I),I=1,N)
0037       10 FORMAT(F6.2)
C
C       KEEP SUM OF FWT(1)+....FWT(N) = 1.00
C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0038          SUM=0.0
0039          DO 11 I=1,N
0040       11 SUM=SUM+FWT(I)
0041          DO 12 I=1,N
0042       12 UWT(I)=FWT(I)/SUM
C
C       READ FACTOR CODE NUMBER, FACTOR'S NAME & SCORES INPUT DATA,
C       EACH ROUND FOR EACH FACTOR.
C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

```
0043          DO 111 NUM=1,N
0044          DO 93 I=1,39
0045          DO 93 J=1,33
0046          AA(I,J)=-1010.10
0047          ICAT(I,J)=-1010.10
0048       93 CONTINUE
0049          READ (IR,17)CODE(NUM),(NAME(NUM,I),I=1,20)
0050       17 FORMAT(I2,3X,20A2)
0051          READ (IR,14)OPTA
0052       14 FORMAT(I1)
0053          READ (IR,33)OPTN
0054          READ (IR,101)LOW( 1),(AA( 1,J),J=27,31)
0055      101 FORMAT(I2,3X,23(F1.0))
0056          READ (IR,101)LOW( 2),(AA(2,J),J=27,32)
0057          READ (IR,101)LOW( 3),(AA(3,J),J=26,32)
0058          READ (IR,101)LOW( 4),(AA(4,J),J=21,33)
0059          READ (IR,101)LOW( 5),(AA(5,J),J=20,33)
0060          READ (IR,101)LOW( 6),(AA(6,J),J=18,18),(AA(6,J),J=20,33)
0061          READ (IR,101)LOW( 7),(AA(7,J),J=18,33)
0062          READ (IR,101)LOW( 8),(AA(8,J),J=17,33)
0063          READ (IR,101)LOW( 9),(AA(9,J),J=11,12),(AA(9,J),J=16,33)
0064          READ (IR,101)LOW(10),(AA(10,J),J= 8,33)
0065          READ (IR,101)LOW(11),(AA(11,J),J= 7,33)
0066          READ (IR,101)LOW(12),(AA(12,J),J= 3,4),(AA(12,J),J=9,32)
0067          READ (IR,101)LOW(13),(AA(13,J),J= 3,4),(AA(13,J),J=9,29)
0068          READ (IR,101)LOW(14),(AA(14,J),J= 3,5),(AA(14,J),J=8,22),
            * (AA(14,J),J=25,28)
0069          READ (IR,101)LOW(15),(AA(15,J),J= 3,5),(AA(15,J),J=7,19),
            * (AA(15,J),J=28,28)
0070          READ (IR,101)LOW(16),(AA(16,J),J= 3,18)
0071          READ (IR,101)LOW(17),(AA(17,J),J= 3,16)
0072          READ (IR,101)LOW(18),(AA(18,J),J= 3,18)
0073          READ (IR,101)LOW(19),(AA(19,J),J= 3,19),(AA(19,J),J=21,21)
0074          READ (IR,101)LOW(20),(AA(20,J),J= 3,21)
0075          READ (IR,101)LOW(21),(AA(21,J),J= 1,21)
0076          READ (IR,101)LOW(22),(AA(22,J),J= 1,20)
0077          READ (IR,101)LOW(23),(AA(23,J),J= 1,20)
0078          READ (IR,101)LOW(24),(AA(24,J),J= 1,20)
0079          READ (IR,101)LOW(25),(AA(25,J),J= 1,21)
0080          READ (IR,101)LOW(26),(AA(26,J),J= 1,21)
0081          READ (IR,101)LOW(27),(AA(27,J),J= 1,1),(AA(27,J),J=3,21)
0082          READ (IR,101)LOW(28),(AA(28,J),J= 3,21)
0083          READ (IR,101)LOW(29),(AA(29,J),J= 3,21)
0084          READ (IR,101)LOW(30),(AA(30,J),J= 8,20)
0085          READ (IR,101)LOW(31),(AA(31,J),J= 8,19)
0086          READ (IR,101)LOW(32),(AA(32,J),J= 8,19)
0087          READ (IR,101)LOW(33),(AA(33,J),J= 8,18)
0088          READ (IR,101)LOW(34),(AA(34,J),J= 9,18)
0089          READ (IR,101)LOW(35),(AA(35,J),J=11,18)
0090          READ (IR,101)LOW(36),(AA(36,J),J=11,17)
0091          READ (IR,101)LOW(37),(AA(37,J),J=11,16)
0092          READ (IR,101)LOW(38),(AA(38,J),J=12,14)
0093          READ (IR,101)LOW(39),(AA(39,J),J=13,13)
0094          IF(NUM.NE.1)GO TO 222
```



```
0095          DO 13 I=1,39
0096          DO 13 J=1,33
0097          A1(I,J)=AA(I,J)
0098          COMP(I,J)=A1(I,J)
0099          IF(A1(I,J).LT.0.0)CTP(I,J)=A
0100          IF(A1(I,J).GE.0.0)CTP(I,J)=B
0101          IF(A1(I,J).EQ.0.0)COMP(I,J)=0.0
0102       13 CONTINUE
0103       33 FORMAT(I1)
        C
        C     WRITE THE ACTUAL SCORES OF FACTOR 1.
        C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0104          IF(OPTA.EQ.0)GO TO 333
0105          WRITE(IW,16)
0106       16 FORMAT(1H1,7(/),22X,103('*'))
0107          WRITE(IW,20)CODE(NUM),NAL(NUM),ACTS,(NAME(NUM,I),I=1,20),
            * FAT(NUM),DAT(NUM)
0108       20 FORMAT( /50X,'FACTOR',2X,I2,1X,A5,4A5,//50X,20A2,//50X,
            * 'INITIAL INPUT WEIGHT =',F6.2,
            *//50X,'MANIPULATED   WEIGHT =',F6.2,/)
0109          WRITE(IW,21)
0110       21 FORMAT(23X,103('*'))
0111          WRITE (IW,22)(K,K=1,16)
0112       22 FORMAT( /30X,16('C',I2,3X)/)
0113          DO 302 I=1,39
0114          WRITE(IW,23)(LOW(I),(A1(I,J),J=1,16),(CTP(I,J),J=1,16))
0115       23 FORMAT( 24X,'R',I2,1X,16F6.2, /28X,16A6)
0116      302 CONTINUE
0117          WRITE(IW,22)(K,K=1,16)
0118          WRITE(IW,24)CS1(NUM)
0119       24 FORMAT(/20X,136('='),//24X,A6,////)
0120          WRITE(IW,15)
0121       15 FORMAT(/20X,'**** ACTUAL SCORES PRINTOUT SHOULD BE REQUESTED,IF
            *DO NOT WANT.',/25X,'COMMAND ''NO'' BY USING CODE ''0'' TO OPTA.')
0122          WRITE(IW,26)
0123       26 FORMAT(1H1,7(/),9X,108('*'))
0124          WRITE(IW,27)
0125       27 FORMAT(36X,'PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
            1 ',/44X,'CASE STUDY : BAN DONG, JOONTHANEE, THAILAND',
            2 /36X,53('-'),/48X,'COURSE : THESIS',22X,'1983',
            3 /53X,': DEPARTMENT OF SURVEY ENGINEERING',
            4 /55X,': CHULALONGKORN UNIVERSITY',/36X,53('-'),
            5 /47X,'ADVISER : ASS. PROF. DR. WICHA JIWALAI',
            6 /47X,'STUDENT : SUTHICHAI SAENGNARK')
0126          WRITE(IW,28)
0127       28 FORMAT(10X,103('*'))
0128          WRITE(IW,29)(K,K=17,33)
0129       29 FORMAT( /13X,17('C',I2,3X)/)
0130          DO 203 I=1,39
0131          WRITE(IW,30)(A1(I,J),J=17,33),LOW(I),(CTP(I,J),J=17,33))
0132       30 FORMAT(11X,17F6.2,1X,'R',I2,/11X,17A6)
0133      203 CONTINUE
0134          WRITE(IW,29)(K,K=17,33)
0135          WRITE(IW,31)CS1(NUM)
```

```
C136          31  FORMAT(/120X,100('*'),//111X,A6)
            C
            C     NORMALISE THE FIRST FACTOR BY CALLING SUBROUTINE 'CNOR'.
C137         333  CALL CNOR(A1)
            C
            C     WRITE THE NORMALISED SCORES OF FACTOR 1.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
C138               IF(OPTN.EQ.0)GO TO 444
C139               WRITE(IW,16)
C140               WRITE(IW,20)CODE(NUM),N41(NUM),SNOR,(NAME(NUM,I),I=1,20),
                 * F4T(NUM),UWT(NUM)
C141               WRITE(IW,21)
C142               WRITE(IW,22)(K,K=1,16)
C143               DO  312 I=1,39
C144               WRITE(IW,23)(LOW(I),(A1(I,J),J=1,16),(CTP(I,J),J=1,16))
C145         312   CONTINUE
C146               WRITE(IW,22)(K,K=1,16)
C147               WRITE(IW,24)CS2(NUM)
C148               WRITE(IW,32)
C149          32   FORMAT(/20X,'*#### NORMAL SCORES PRINTOUT SHOULD BE REQUESTED, IF
                 * DO NOT WANT.',/25X,'COMMAND ''NO''BY USING CODE ''0'' TO OPTN.')
C150               WRITE(IW,26)
C151               WRITE(IW,27)
C152               WRITE(IW,28)
C153               WRITE(IW,29)(K,K=17,33)
C154               DO 213 I=1,39
C155               WRITE(IW,30)((A1(I,J),J=17,33),LOW(I),(CTP(I,J),J=17,33))
C156         213   CONTINUE
C157               WRITE(IW,29)(K,K=17,33)
C158               WRITE(IW,31)CS2(NUM)
C159         444   IF (UWT(1).EQ.0.00)GO TO 111
C160               DO 34 I=1,39
C161               DO 34 J=1,33
C162               IF(COMP(I,J).LT.0.0)GO TO 34
C163               COMP(I,J)=UWT(NUM)*A1(I,J)
C164          34   CONTINUE
C165               GO TO 111
            C
            C     WRITE THE ACTUAL SCORES OF THE OTHERS.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
C166         222   IF(OPTA.EQ.0)GO TO 555
C167               WRITE(IW,16)
C168               WRITE(IW,20)CODE(NUM),N41(NUM),ACTS,(NAME(NUM,I),I=1,20),
                 * F4T(NUM),UWT(NUM)
C169               WRITE(IW,21)
C170               WRITE(IW,22)(K,K=1,16)
C171               DO 313 I=1,39
C172               WRITE(IW,23)(LOW(I),(AA(I,J),J=1,16),(CTP(I,J),J=1,16))
C173         313   CONTINUE
C174               WRITE(IW,22)(K,K=1,16)
C175               WRITE(IW,24)CS1(NUM)
C176               WRITE(IW,15)
C177               WRITE(IW,26)
C178               WRITE(IW,27)
```



```
C179               WRITE(IW,28)
C180               WRITE(IW,29)(K,K=17,33)
C181               DO 223 I=1,39
C182               WRITE(IW,30)((AA(I,J),J=17,33),LOW(I),(CTP(I,J),J=17,33))
C183         223   CONTINUE
C184               WRITE(IW,29)(K,K=17,33)
C185               WRITE(IW,31)CS1(NUM)
            C
            C     NORMALISE OTHER FACTORS BY CALLING SUBROUTINE 'CNOR'.
C186         555   CALL CNOR(AA)
            C
            C     WRITE THE NORMALISED SCORES OF OTHER FACTORS.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
C187               IF(OPTN.EQ.0)GO TO 35
C188               WRITE(IW,16)
C189               WRITE(IW,20)CODE(NUM),N41(NUM),SNOR,(NAME(NUM,I),I=1,20),
                 * F4T(NUM),UWT(NUM)
C190               WRITE(IW,21)
C191               WRITE(IW,22)(K,K=1,16)
C192               DO 314 I=1,39
C193               WRITE(IW,23)(LOW(I),(AA(I,J),J=1,16),(CTP(I,J),J=1,16))
C194         314   CONTINUE
C195               WRITE(IW,22)(K,K=1,16)
C196               WRITE(IW,24)CS2(NUM)
C197               WRITE(IW,32)
C198               WRITE(IW,26)
C199               WRITE(IW,27)
C200               WRITE(IW,28)
C201               WRITE(IW,29)(K,K=17,33)
C202               DO 224 I=1,39
C203               WRITE(IW,30)((AA(I,J),J=17,33),LOW(I),(CTP(I,J),J=17,33))
C204         224   CONTINUE
C205               WRITE(IW,29)(K,K=17,33)
C206               WRITE(IW,31)CS2(NUM)
            C
            C     CALCULATION OF COMPOSITE SCORES.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
C207               IF(UWT(NUM).EQ.0.00)GO TO 505
C208          35   DO 36 I=1,39
C209               DO 36 J=1,33
C210               IF(COMP(I,J).LT.0.0)GO TO 36
C211               COMP(I,J)=COMP(I,J)+UWT(NUM)*AA(I,J)
C212          36   CONTINUE
C213         505   IF(NUM.EQ.N)GO TO 506
C214         111   CONTINUE
            C
            C     RANK THE SCORES BY CALLING THE SUBROUTINE 'RANK'.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
C215         506   DO 507 I=1,N
C216         507   RNK(I)=U41(I)
C217               CALL RANK(RNK,N)
            C
            C     PUT CODE NAMES IN ACCORDANCE WITH RANKED WEIGHTS.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

```
0218              DO 508 J=1,N
0219              DO 509 K=1,N
0220              IF(RNK(J).EQ.OWT(K))GOTO 511
0221          509 CONTINUE
0222          511 NM2(J)=NM1(K)
0223              OWT(K)=9.9
0224          508 CONTINUE
0225              DO 510 I=N,19
0226              IF(N.LT.20)RNK(I+1)=1010.10
0227              IF(N.LT.20)NM2(I+1)=NM1(I+1)
0228          510 CONTINUE
            C
            C     WRITE THE COMPOSITE SCORES.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0229              READ (IR,33)OPTC
0230              IF(OPTC.EQ.0)GO TO 1000
0231              WRITE(IW,16)
0232              WRITE(IW,40)N,(I,NM2(I),RNK(I),I=1,20)
0233           40 FORMAT( /65X,'(COMPOSITE SCORES)',/50X,'RANKED WEIGHTS FOR EACH F
                 *ACTOR OF TOTAL ',I2,' FACTORS.',5(/50X,4(I2,1X,A3,'=',F5.2,1X)),/)
0234              WRITE(IW,21)
0235              WRITE(IW,22)(K,K=1,16)
0236              DO 315 I=1,39
0237              WRITE(IW,23)(LOW(I),(COMP(I,J),J=1,16),(CTP(I,J),J=1,16))
0238          315 CONTINUE
0239              WRITE(IW,22)(K,K=1,16)
0240              WRITE(IW,42)
0241           42 FORMAT(/23X,103('*'),//24X,'PART I')
0242              WRITE(IW,43)
0243           43 FORMAT(/20X,'*** COMPOSITE SCORES PRINTOUT SHOULD BE REQUESTED,IF
                 * DO NOT WANT.',/25X,'COMMAND ''NO''BY USING CODE ''0'' TO OPTC.')
0244              WRITE(IW,26)
0245              WRITE(IW,27)
0246              WRITE(IW,28)
0247              WRITE(IW,29)(K,K=17,33)
0248              DO 225 I=1,39
0249              WRITE(IW,30)((COMP(I,J),J=17,33),LOW(I),(CTP(I,J),J=17,33))
0250          225 CONTINUE
0251              WRITE(IW,29)(K,K=17,33)
0252              WRITE(IW,44)
0253           44 FORMAT(/10X,108('*'),//110X,'PART II')
            C
            CUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCU
            C
            C     MAIN PROGRAM : PART B
            C     POTENTIAL SURFACES.
            C
            CUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCUCU
            C     CATEGORISED POTENTIAL SURFACES RANGING UP TO 10 CATEGORIES,
            C     OF WHICH 0 BEING THE LOWEST POTENTIAL & 9 BEING THE HIGHEST.
            C     CLASSIFY COMPOSITE SCORES FROM 0-100 INTO THE RIGHT CATEGORIES,
            C     COUNT THE FREQUENCIES TO EACH CATEGORY.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0254         1000 NON=0
```



```
0255              NNN=0
0256              NOP=0
0257              DO 767 K=10,100,10
0258          767 FREQ(K)=0.0
0259              DO 666 L=10,100,10
0260              DO 777 I=1,39
0261              DO 777 J=1,33
0262              IF(COMP(I,J).LT.0.0)GO TO 777
0263              IF(COMP(I,J).GE.(FLOAT(L)-10.0).AND.COMP(I,J).LT.FLOAT(L))
                 * FREQ(L)=FREQ(L)+1.0
0264              IF(COMP(I,J).GE.(FLOAT(L)-10.0).AND.COMP(I,J).LT.FLOAT(L))
                 * ICAT(I,J)=NNN
0265              IF(L.EQ.100.AND.COMP(I,J).EQ.100.0)FREQ(L)=FREQ(L)+1.0
0266              IF(L.EQ.100.AND.COMP(I,J).EQ.100.0)ICAT(I,J)=9
0267          777 CONTINUE
0268              IF(FREQ(L).GT.0.0)NON=NON+1
0269              NOO=NON+NCP
0270              IF(FREQ(L).GT.0.0)FREQ(NOO)=FREQ(L)
0271              IF(FREQ(L).EQ.0.0)NOP=NOP+1
0272              NEE=NON+NOP
0273              IF(FREQ(L).EQ.0.0)FREQ(NEE)=0.0
0274              IF(FREQ(L).GT.0.0)NNN=NON+NOP
0275              IF(FREQ(L).EQ.0.0)NNN=NON+NOP
0276          666 CONTINUE
0277              DO 428 I=1,NNN
0278              IF(FREQ(I).GT.0.0)GO TO 424
0279          428 CONTINUE
0280          424 NLOW=I-1
0281              DO 422 I=1,NNN
0282              IF(FREQ(NNN-I+1).NE.0.0)GO TO 421
0283          422 CONTINUE
0284          421 NHY=NNN-I
0285              NSN=NON
0286              NON=NNN
            C
            C     FIND PERCENTAGE OF EACH POTENTIAL CATEGORY
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0287              ACPER=0.0
0288              DO 51 K=1,NON
0289              PER(NON-K+1)=(FREQ(NON-K+1)/601.0)*100.0
0290              ACPER=ACPER+PER(NON-K+1)
0291              PERA(NON-K+1)=ACPER
0292           51 CONTINUE
0293              PERA(1)=100.00
0294              DO 52 I=1,39
0295              DO 52 J=1,33
0296              IF(A1(I,J).LT.0.0)CTP(I,J)=0
0297              IF(A1(I,J).GE.0.0)CTP(I,J)=0
0298           52 CONTINUE
0299              IF(NON.EQ.10)GO TO 888
0300              DO 53 I=NON,9
0301              PER(I+1)=0.0
0302           53 CONTINUE
            C
```

```
            C       ASSIGN 0 TO 9 IN THE CATEGORY NUMBER CAT(I).
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0303          883   DO 54 I=1,10
0304                CAT(I)=(I-1)
0305           54   CONTINUE
0306                READ (IR,331)OPTP
0307                SIG=0.0
0308                NON=NON
0309                MAN=0
0310                LE=0
0311                DOT=0
0312           75   DO 60 L=1,NON
0313                IF(MAN.NE.0)GO TO 76
0314                IF(NON-L).NE.NHY)GO TO 60
0315                MAN=57
0316           76   IF(NON-L).LT.NLOW)GO TO 61
0317                DO 62 I=1,39
0318                DO 62 J=1,33
0319                IF(ICAT(I,J).EQ.(NON-L))CTP(I,J)=CHAR(NON-L+1)
0320           62   CONTINUE
0321                IF(OPTP.EQ.0)GO TO 701
0322                LE=LE+1
0323                IF(LE.GT.3.AND.SIG.NE.0.0)GO TO 701
            C
            C       WRITE THE CATEGORISED POTENTIALS OF EACH POTENTIAL &
            C       THE FIRST 3 HIGHEST POTENTIALS.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0324                NSUB=NON-L+1
0325                NR=NON-L
0326                WRITE(IW,74)
0327           74   FORMAT(1H1,  59X,'*** PSA.MAP ***',/)
0328                WRITE(IW,70)((KJ(I,J),J=1,33),I=1,6)
0329           70   FORMAT(6(/19X,33(I1,2X)))
0330                WRITE(IW,152)
0331          152   FORMAT(18X,33(' | '))
0332                DO 73 I=1,39
0333                WRITE(IW,71)LL(I),(CTP(I,J),J=1,33),LL(I)
0334           71   FORMAT(10X,I7,'-',33A3,'-',I7)
0335                WRITE(IW,72)(CTP(I,J),J=1,33)
0336           72   FORMAT( 18X,33A3)
0337           73   CONTINUE
0338                WRITE(IW,152)
0339                WRITE(IW,79)((KJ(I,J),J=1,33),I=1,6)
0340           79   FORMAT(1H+,6(/19X,33(I1,2X)))
0341                WRITE(IW,80)
0342           80   FORMAT(//10X,38('-3-'))
0343                IF(SIG.NE.0.0)GO TO 700
0344                M=1
0345                NHI= NR
0346                WRITE(IW,66)NSN,NLOW,NHI,(CAT(I),I=1,5),(PER(I),I=1,5),
                  * (CAT(I),I=6,10),(PER(I),I=6,10),M,DOT,NR,NHI,PER(NSUB),PAC
0347                GO TO 99
0348          700   WRITE(IW,66)NSN,NLOW,NHI,(CAT(I),I=1,5),(PER(I),I=1,5),
                  * (CAT(I),I=6,10),(PER(I),I=6,10),LE,DOT,NR,NHI,PER(NSUB),PAC
```



```
0349           65   FORMAT(/10X,'CATEGORISED POTENTIAL OF TOTAL',4X,I2,5X,'CLASSES :'
                  1 ,11X,'PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)',
                  2 /10X,I1,' = THE LOWEST POTENTIAL,',I1,' = THE HIGHEST POTENTIAL.'
                  3 ,13X,'CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND',
                  4  /10X,'CATEGORY :',7X,5(3X,I1,3X), 9X,53('='),
                  5  /10X,'PERCENT  :',7X,5(1X,F5.2,1X),21X,'COURSE : THESIS',22X,
                  6 '1983',/10X,'CATEGORY :',7X,5(3X,I1,3X),28X,': DEPARTMENT OF SURV
                  7EY ENGINEERING',/10X,'PERCENT  :',7X,5(F6.2,1X ),28X,': CHULALONGK
                  8ORN UNIVERSITY',/10X,51('-'),10X,53('='),/10X,'PERCENT OF THIS '
                  9 ,I2,' POTENTIAL AREA',A3,1X,'* USING FOR',
                  A 21X,'SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI',
                  * /10X,'FROM ',I1,' - ',I1,
                  B ' TO TOTAL AREA =',F6.2,5X,'*',1X,2A4,25X,
                  * 'STUDENT : SUTHICHAI SAENGVARK')
0350           99   WRITE(IW,81)
0351           81   FORMAT(/10X,38('-3-'))
0352                IF(SIG.NE.0.0)GO TO 185
0353                DO 702 I=1,39
0354                DO 702 J=1,33
0355                IF(AA(I,J).LT.0.0)CTP(I,J)=C
0356                IF(AA(I,J).GE.0.0)CTP(I,J)=D
0357          702   CONTINUE
0358                WRITE(IW,157)
0359          157   FORMAT(//20X,'$$$  FOR EACH POTENTIAL AREA PRINTOUT SHOULD BE REQ
                  *JESTED, IF DO NOT WANT.',/26X,
                  * 'COMMAND ''NO'' BY USING CODE ''0'' TO OPTP.')
0360                WRITE(IW,149)N,(I,NM2(I),RNK(I),I=1,20)
0361          149   FORMAT(//21X,'*   MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL ',
                  * I2,' FACTORS.',/,4(/25X,5(I2,1X,A3,'=',F5.2,1X)))
0362                IF(SIG.EQ.0.0)GO TO 60
0363          185   WRITE(IW,58)
0364           58   FORMAT(//20X,'###  THE FIRST 3 HIGHEST POTENTIAL AREAS PRINTOUT S
                  *HOULD BE REQUESTED, IF DO NOT WANT.',
                  * /26X,'COMMAND ''NO'' BY USING CODE ''0'' TO OPTP.')
0365                WRITE(IW,149)N,(I,NM2(I),RNK(I),I=1,20)
0366           60   CONTINUE
0367           61   SIG=1.0
0368                MAN=0
0369                LE=0
0370                NHI=NHY
0371                DOT=0
0372                GO TO 75
            C
            C       WRITE THE COMBINED POTENTIAL SURFACE.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0373          701   DO 90 I=1,39
0374                DO 90 J=1,33
0375                CTP(I,J)=D
0376                CTO(I,J)=E
0377           90   CONTINUE
0378                NHI=NHY
0379                DO 91 L=1,NON
0380                DO 92 I=1,39
0381                DO 92 J=1,33
```

```
            C       ASSIGN 0 TO 9 IN THE CATEGORY NUMBER CAT(I).
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0303          883   DO 54 I=1,10
0304                CAT(I)=(I-1)
0305           54   CONTINUE
0306                READ (IR,331)OPTP
0307                SIG=0.0
0308                NON=NON
0309                MAN=0
0310                LE=0
0311                DOT=0
0312           75   DO 60 L=1,NON
0313                IF(MAN.NE.0)GO TO 76
0314                IF(NON-L).NE.NHY)GO TO 60
0315                MAN=57
0316           76   IF(NON-L).LT.NLOW)GO TO 61
0317                DO 62 I=1,39
0318                DO 62 J=1,33
0319                IF(ICAT(I,J).EQ.(NON-L))CTP(I,J)=CHAR(NON-L+1)
0320           62   CONTINUE
0321                IF(OPTP.EQ.0)GO TO 701
0322                LE=LE+1
0323                IF(LE.GT.3.AND.SIG.NE.0.0)GO TO 701
            C
            C       WRITE THE CATEGORISED POTENTIALS OF EACH POTENTIAL &
            C       THE FIRST 3 HIGHEST POTENTIALS.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0324                NSUB=NON-L+1
0325                NR=NON-L
0326                WRITE(IW,74)
0327           74   FORMAT(1H1,  59X,'*** PSA.MAP ***',/)
0328                WRITE(IW,70)((KJ(I,J),J=1,33),I=1,6)
0329           70   FORMAT(6(/19X,33(I1,2X)))
0330                WRITE(IW,152)
0331          152   FORMAT(18X,33(' | '))
0332                DO 73 I=1,39
0333                WRITE(IW,71)LL(I),(CTP(I,J),J=1,33),LL(I)
0334           71   FORMAT(10X,I7,'-',33A3,'-',I7)
0335                WRITE(IW,72)(CTP(I,J),J=1,33)
0336           72   FORMAT( 18X,33A3)
0337           73   CONTINUE
0338                WRITE(IW,152)
0339                WRITE(IW,79)((KJ(I,J),J=1,33),I=1,6)
0340           79   FORMAT(1H+,6(/19X,33(I1,2X)))
0341                WRITE(IW,80)
0342           80   FORMAT(//10X,38('-3-'))
0343                IF(SIG.NE.0.0)GO TO 700
0344                M=1
0345                NHI= NR
0346                WRITE(IW,66)NSN,NLOW,NHI,(CAT(I),I=1,5),(PER(I),I=1,5),
                  * (CAT(I),I=6,10),(PER(I),I=6,10),M,DOT,NR,NHI,PER(NSUB),PAC
0347                GO TO 99
0348          700   WRITE(IW,66)NSN,NLOW,NHI,(CAT(I),I=1,5),(PER(I),I=1,5),
                  * (CAT(I),I=6,10),(PER(I),I=6,10),LE,DOT,NR,NHI,PER(NSUB),PAC
```



```
0349           65   FORMAT(/10X,'CATEGORISED POTENTIAL OF TOTAL',4X,I2,5X,'CLASSES :'
                  1 ,11X,'PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)',
                  2 /10X,I1,' = THE LOWEST POTENTIAL,',I1,' = THE HIGHEST POTENTIAL.'
                  3 ,13X,'CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND',
                  4  /10X,'CATEGORY :',7X,5(3X,I1,3X), 9X,53('='),
                  5  /10X,'PERCENT  :',7X,5(1X,F5.2,1X),21X,'COURSE : THESIS',22X,
                  6 '1983',/10X,'CATEGORY :',7X,5(3X,I1,3X),28X,': DEPARTMENT OF SURV
                  7EY ENGINEERING',/10X,'PERCENT  :',7X,5(F6.2,1X ),28X,': CHULALONGK
                  8ORN UNIVERSITY',/10X,51('-'),10X,53('='),/10X,'PERCENT OF THIS '
                  9 ,I2,' POTENTIAL AREA',A3,1X,'* USING FOR',
                  A 21X,'SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI',
                  * /10X,'FROM ',I1,' - ',I1,
                  B ' TO TOTAL AREA =',F6.2,5X,'*',1X,2A4,25X,
                  * 'STUDENT : SUTHICHAI SAENGVARK')
0350           99   WRITE(IW,81)
0351           81   FORMAT(/10X,38('-3-'))
0352                IF(SIG.NE.0.0)GO TO 185
0353                DO 702 I=1,39
0354                DO 702 J=1,33
0355                IF(AA(I,J).LT.0.0)CTP(I,J)=C
0356                IF(AA(I,J).GE.0.0)CTP(I,J)=D
0357          702   CONTINUE
0358                WRITE(IW,157)
0359          157   FORMAT(//20X,'$$$  FOR EACH POTENTIAL AREA PRINTOUT SHOULD BE REQ
                  *JESTED, IF DO NOT WANT.',/26X,
                  * 'COMMAND ''NO'' BY USING CODE ''0'' TO OPTP.')
0360                WRITE(IW,149)N,(I,NM2(I),RNK(I),I=1,20)
0361          149   FORMAT(//21X,'*   MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL ',
                  * I2,' FACTORS.',/,4(/25X,5(I2,1X,A3,'=',F5.2,1X)))
0362                IF(SIG.EQ.0.0)GO TO 60
0363          185   WRITE(IW,58)
0364           58   FORMAT(//20X,'###  THE FIRST 3 HIGHEST POTENTIAL AREAS PRINTOUT S
                  *HOULD BE REQUESTED, IF DO NOT WANT.',
                  * /26X,'COMMAND ''NO'' BY USING CODE ''0'' TO OPTP.')
0365                WRITE(IW,149)N,(I,NM2(I),RNK(I),I=1,20)
0366           60   CONTINUE
0367           61   SIG=1.0
0368                MAN=0
0369                LE=0
0370                NHI=NHY
0371                DOT=0
0372                GO TO 75
            C
            C       WRITE THE COMBINED POTENTIAL SURFACE.
            C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0373          701   DO 90 I=1,39
0374                DO 90 J=1,33
0375                CTP(I,J)=D
0376                CTO(I,J)=E
0377           90   CONTINUE
0378                NHI=NHY
0379                DO 91 L=1,NON
0380                DO 92 I=1,39
0381                DO 92 J=1,33
```

```
0382          IF(ICAT(I,J).EQ.(NUN-L))CTP(I,J)=CHAR(NUN-L+1)
0383          IF(ICAT(I,J).EQ.(NUN-L))CTJ(I,J)=ALPHA(NUN-L+1)
0384       92 CONTINUE
0385          NSJJ=NUN-L+1
0386       91 CONTINUE
0387          WRITE(IW,74)
0388          WRITE(IW,70)((KO(I,J),J=1,33),I=1,6)
0389          WRITE(IW,152)
0390          DO 85 I=1,39
0391          WRITE(IW,71)LL(I),(CTP(I,J),J=1,33),LL(I)
0392          WRITE(IW,72)(CTP(I,J),J=1,33)
0393       85 CONTINUE
0394          WRITE(IW,152)
0395          WRITE(IW,79)((KO(I,J),J=1,33),I=1,6)
0396          WRITE(IW,80)
0397          L=NSN
0398          WRITE(IW,66)NSN,NLOW,NHY,(CAT(I),I=1,5),(PER(I),I=1,5),
            * (CAT(I),I=6,10),(PER(I),I=6,10),L,DOT,NLOW,NHI,PERA(NSUB),PAC
0399          WRITE(IW,89)
0400       83 FORMAT(/13X,33('-a-'),////72X,'APPROX. SCALE = 1 : 65,000')
0401          WRITE(IW,149)N,(I,NM2(I),RNK(I),I=1,20)
        C
        C     WRITE A MAP FOR PLANNING.
        C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0402          WRITE(IW,800)
0403      803 FORMAT(1H1,16(/),20X,89('O'))
0404          WRITE(IW,801)
0405      801 FORMAT(1H+,19X,89('*'))
0406          WRITE(IW,902)NSN,NLOW,NHY,(CAT(I),I=1,5),(PER(I),I=1,5),
            * (CAT(I),I=6,10),(PER(I),I=6,10),L,NLOW,NHI,PERA(NSUB),PAC
0407      802 FORMAT(/35X,'CATEGORISED POTENTIAL OF TOTAL',4X,I2,5X,'CLASSES :'
            1/35X,I1,' = THE LOWEST POTENTIAL.',I1,' = THE HIGHEST POTENTIAL.',
            2 /35X,'CATEGORY :',7X,5(3X,I1,3X),
            3 /35X,'PERCENT  :',7X,5(1X,F5.2,1X),
            4 /35X,'CATEGORY :',7X,5(3X,I1,3X),
            * /35X,'PERCENT  :',7X,5(1X,F5.2,1X),/35X,51('-'),
            5 /35X,'PERCENT OF THIS ',I2,  ' POTENTIAL AREAS',3X,'* USING FOR',
            6 /35X,'FROM ',I1,'-',I1,' TO TOTAL AREA =',F6.2,7X,'*',1X,2A4,/)
0408          WRITE(IW,803)
0409      803 FORMAT(20X,89('*'))
0410          WRITE(IW,804)
0411      804 FORMAT(1H+,19X,89('O'),/)
0412          WRITE(IW,806)((KK(I,J),J=1,17),I=1,6)
0413      806 FORMAT(  6(/28X,17(I1,4X)))
0414          DO 810 I=1,39
0415          WRITE(IW,807)LL(I)
0416      807 FORMAT(20X,I7,1X,81('+'))
0417          WRITE(IW,808)(CTO(I,J),J=1,16),F
0418      808 FORMAT(28X,16A5,A1)
0419          WRITE(IW,808)(CTO(I,J),J=1,16),F
0420      810 CONTINUE
0421          WRITE(IW,807)LL(40)
0422          WRITE(IW,805)((KK(I,J),J=1,17),I=1,6)
0423      805 FORMAT(1H+,6(/28X,17(I1,4X)))
```



```
0424          WRITE(IW,812)PAC
0425      812 FORMAT(//15X,94('='),//28X,'*** THIS IS THE MAP FOR ...',2A4)
0426          WRITE(IW,149)N,(I,NM2(I),RNK(I),I=1,20)
0427          WRITE(IW,900)
0428      900 FORMAT(1H1,16(/),16X,94('O'))
0429          WRITE(IW,901)
0430      901 FORMAT(1H+,15X,94('*'))
0431          WRITE(IW,902)
0432      902 FORMAT(/42X,'PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA
            1)',/50X,'CASE STUDY : BANDUNG, UDONTHANEE, THAILAND',
            2 /42X,53('-'),/54X,'COURSE : THESIS',22X,'1983',
            3 /61X,': DEPARTMENT OF SURVEY ENGINEERING',
            4 /61X,': CHULALONGKORN UNIVERSITY',/42X,53('-'),
            5 /53X,'ADVISER : ASS. PROF. DR. WICHA JIWALAI',
            6 /53X,'STUDENT : SUTHICHAI SAENGNARK',/)
0433          WRITE(IW,903)
0434      903 FORMAT(16X,94('*'))
0435          WRITE(IW,904)
0436      904 FORMAT(1H+,15X,94('O'),/)
0437          WRITE(IW,906)((KK(I,J),J=17,34),I=1,6)
0438      906 FORMAT(  6(/16X,18(I1,4X)))
0439          DO 910 I=1,39
0440          WRITE(IW,907)LL(I)
0441      907 FORMAT(16X,86('+'),18)
0442          WRITE(IW,908)(CTO(I,J),J=17,33),F
0443      908 FORMAT(16X,17A5,A1)
0444          WRITE(IW,908)(CTO(I,J),J=17,33),F
0445      910 CONTINUE
0446          WRITE(IW,907)LL(40)
0447          WRITE(IW,911)((KK(I,J),J=17,34),I=1,6)
0448      911 FORMAT(1H+,6(/16X,18(I1,4X)))
0449          WRITE(IW,912)
0450      912 FORMAT(//16X,99('='),//76X,'APPROX. SCALE = 1 : 40,000',
            * ////85X,17('-'))
        C
        C     CREATE THE GRAY MAP FOR PRESENTING OF ALL POTENTIAL AREAS.
        C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
0451          DO 140 I=1,9
0452      140 ZF(I)=D
0453          ZJ(1)=S5
0454          DO 141 I=2,9
0455      141 ZJ(I)=D
0456          Z1(1)=S0
0457          Z1(2)=D
0458          DO 142 I=3,9
0459      142 Z1(I)=D
0460          Z2(1)=S2
0461          Z2(2)=S2
0462          Z2(3)=D
0463          DO 143 I=4,9
0464      143 Z2(I)=D
0465          Z2(4)=S2
0466          Z3(1)=S2
0467          Z3(2)=S3
```

```
0468              Z3(3)=S10
0469              DO 144 I=4,9
0470        144   Z3(I)=0
0471              Z4(1)=0
0472              Z4(2)=S12
0473              Z4(3)=S5
0474              Z4(4)=S5
0475              DO 145 I=5,9
0476        145   Z4(I)=0
0477              Z5(1)=S11
0478              Z5(2)=S7
0479              Z5(3)=S7
0480              DO 196 I=4,9
0481        196   Z5(I)=0
0482              Z6(1)=S2
0483              Z6(2)=S2
0484              Z6(3)=S2
0485              Z6(4)=S2
0486              Z6(5)=S4
0487              Z6(6)=S4
0488              Z6(7)=S4
0489              Z6(8)=S4
0490              Z6(9)=0
0491              Z7(1)=S4
0492              Z7(2)=S4
0493              Z7(3)=S4
0494              Z7(4)=S7
0495              Z7(5)=S7
0496              Z7(6)=S7
0497              Z7(7)=S2
0498              Z7(8)=S2
0499              Z7(9)=0
0500              Z8(1)=S4
0501              Z8(2)=S4
0502              Z8(3)=S4
0503              Z8(4)=S3
0504              Z8(5)=S3
0505              Z8(6)=S3
0506              Z8(7)=S10
0507              Z8(8)=S4
0508              Z8(9)=S3
0509              Z9(1)=S9
0510              Z9(2)=S9
0511              Z9(3)=S7
0512              Z9(4)=S7
0513              Z9(5)=S6
0514              Z9(6)=S13
0515              Z9(7)=S4
0516              Z9(8)=S4
0517              Z9(9)=S1
0518              DIP=0.0
0519              DO 126 I=1,39
0520              DO 126 J=1,33
0521              DO 126 K=1,9
```



```
0522              IF(AA(I,J).LT.0.0)ZW(I,J,K)=ZF(K)
0523              IF(ICAT(I,J).EQ.0)ZW(I,J,K)=Z0(K)
0524              IF(ICAT(I,J).EQ.1)ZW(I,J,K)=Z1(K)
0525              IF(ICAT(I,J).EQ.2)ZW(I,J,K)=Z2(K)
0526              IF(ICAT(I,J).EQ.3)ZW(I,J,K)=Z3(K)
0527              IF(ICAT(I,J).EQ.4)ZW(I,J,K)=Z4(K)
0528              IF(ICAT(I,J).EQ.5)ZW(I,J,K)=Z5(K)
0529              IF(ICAT(I,J).EQ.6)ZW(I,J,K)=Z6(K)
0530              IF(ICAT(I,J).EQ.7)ZW(I,J,K)=Z7(K)
0531              IF(ICAT(I,J).EQ.8)ZW(I,J,K)=Z8(K)
0532              IF(ICAT(I,J).EQ.9)ZW(I,J,K)=Z9(K)
0533        126   CONTINUE
0534       7676   DO 9636 I=1,2
0535              WRITE(IW,134)
0536        134   FORMAT(1H1,50X,'-: A LAND INFORMATION SYSTEM :-',/58X,
                * '*** OKAY MAP ***',/)
0537              WRITE(IW,70)((KO(I,J),J=1,33),I=1,6)
0538              WRITE(IW,152)
0539              DO 170 I=1,39
0540              WRITE(IW,172)LL(I),(ZW(I,J,1),J=1,33),LL(I)
0541        172   FORMAT(10X,I7,'-',33A3,'-',I7)
0542              DO 129 K=2,9
0543              WRITE(IW,173)(ZW(I,J,K),J=1,33)
0544        173   FORMAT(1H+,17X,33A3)
0545        129   CONTINUE
0546              WRITE(IW,174)(ZW(I,J,1),J=1,33)
0547        174   FORMAT(13X,33A3)
0548              DO 131 K=2,9
0549              WRITE(IW,173)(ZW(I,J,K),J=1,33)
0550        131   CONTINUE
0551        170   CONTINUE
0552              WRITE(IW,152)
0553              WRITE(IW,79)((KO(I,J),J=1,33),I=1,6)
0554              WRITE(IW,182)
0555        182   FORMAT(//9X,39('*U*'))
0556              WRITE(IW,183)
0557        183   FORMAT(1H+,8X,39(' Y '))
0558              IF(DIP.NE.0.0)GO TO 8686
0559              WRITE(IW,175)(CAT(I),I=1,10)
0560        175   FORMAT(//,10X,'CATEGORY :', 9X,10(I1,7X),/)
0561              DO 178 L=1,2
0562              WRITE(IW,176)Z0(I),Z1(I),Z2(I),Z3(I),Z4(I),Z5(I),Z6(I),Z7(I),
                * Z8(I),Z9(I)
0563        176   FORMAT(28X,10(A3,5X))
0564              DO 127 I=2,9
0565              WRITE(IW,177) Z0(I),Z1(I),Z2(I),Z3(I),Z4(I),Z5(I),Z6(I),Z7(I),
                * Z8(I),Z9(I)
0566        177   FORMAT(1H+,27X,10(A3,5X))
0567        127   CONTINUE
0568        178   CONTINUE
0569              WRITE(IW,179)(PER(I),I=1,10)
0570        179   FORMAT(/10X,'PERCENT  :',7X,10(F5.2,3X))
0571              WRITE(IW,180)PAC
0572        180   FORMAT(///28X,'*:*  COMPUTER PRINTOUT SHOWING POTENTIAL FOR ...'
```

```
                 * ,244,/33X,'DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.')
0573                WRITE(IW,150)N,(I,NM2(I),RNK(I),I=1,20)
0574          150   FORMAT(//29X,'*   MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL ',
                 * I2,' FACTORS.',/,4(/33X,3(I2,1X,A3,'=',F5.2,1X)))
0575         9676   CONTINUE
0576                DO 146 I=1,39
0577                DO 146 J=1,33
0578                DO 146 K=1,9
0579                IF(AA(I,J).LT.0.0)ZW(I,J,K)=ZF(K)
0580                IF(ICAT(I,J).EQ.0)ZW(I,J,K)=Z0(K)
0581                IF(ICAT(I,J).EQ.1)ZW(I,J,K)=Z1(K)
0582                IF(ICAT(I,J).EQ.2)ZW(I,J,K)=Z2(K)
0583                IF(ICAT(I,J).EQ.3)ZW(I,J,K)=Z3(K)
0584                IF(ICAT(I,J).EQ.4)ZW(I,J,K)=Z4(K)
0585                IF(ICAT(I,J).EQ.5)ZW(I,J,K)=Z5(K)
0586                IF(ICAT(I,J).EQ.6)ZW(I,J,K)=Z6(K)
0587                IF(ICAT(I,J).EQ.7)ZW(I,J,K)=Z7(K)
0588                IF(ICAT(I,J).EQ.8)ZW(I,J,K)=Z9(K)
0589                IF(ICAT(I,J).EQ.9)ZW(I,J,K)=Z9(K)
0590          146   CONTINUE
0591                DIP=1.0
0592                GO TO 7676
0593         8635   PER(1)=PER(1)+PER(2)
0594                DO 147 I=3,8
0595          147   PER(I-1)=PER(I)
0596                PER(8)=PER(9)+PER(10)
0597                WRITE(IW,190)(CAT(I),I=1,8)
0598                DO 197 L=1,2
0599                WRITE(IW,191)Z0(1),Z1(1),Z2(1),Z3(1),Z5(1),Z6(1),Z7(1),Z9(1)
0600                DO 193 I=2,9
0601                WRITE(IW,192)Z0(I),Z1(I),Z2(I),Z3(I),Z5(I),Z6(I),Z7(I),Z9(I)
0602          192   FORMAT(1H+,45X,8(A3,5X))
0603          193   CONTINUE
0604          197   CONTINUE
0605          190   FORMAT(//28X,'CATEGORY :',7X,8(I1,7X),/)
0606          191   FORMAT(46X,8(A3,5X))
0607                WRITE(IW,194)(PER(I),I=1,8)
0608          194   FORMAT(/23X,'PERCENT  :',7X,3(F5.2,3X))
0609                WRITE(IW,180)PAC
0610                WRITE(IW,150)N,(I,NM2(I),RNK(I),I=1,20)
0611                STOP
0612                END
```

```
C
C       SUBROUTINE FOR NORMALIZATION
C
C
      SUBROUTINE CNOR(SJT)
      DIMENSION SJT(39,33)
      AMAX=SJT(1,27)
      AMIN=SJT(1,27)
      DO 33 I=1,39
      DO 33 J=1,33
      IF(SJT(I,J).LT.0.00)GO TO 33
      IF(SJT(I,J).GT.AMAX)AMAX=SJT(I,J)
      IF(SJT(I,J).LT.AMIN)AMIN=SJT(I,J)
      IF(SJT(I,J).EQ.0.00)AMIN=0.00
   33 CONTINUE
      DO 44 I=1,39
      DO 44 J=1,33
      IF(SJT(I,J).LT.0.00)GO TO 44
      SJT(I,J)=(SJT(I,J)-AMIN)*100.0/(AMAX-AMIN)
   44 CONTINUE
      RETURN
      END
```



```
C
C       SUBROUTINE FOR SCORES RANKING.
C
C
      SUBROUTINE RANK(SU,K)
      DIMENSION SU(K)
      REAL TEMP
      J=K-1
      M=J
      DO 55 I=1,J
      SJN=0.00
      DO 56 L=1,M
      IF(SU(L)-SU(L+1))66,66,77
   77 TEMP=SU(L+1)
      SU(L+1)=SU(L)
      SU(L)=TEMP
      SJN=SJN+1.
   66 CONTINUE
      IF(SJN.EQ.0.00)GO TO 88
   55 M=M-1
   88 RETURN
      END
```

DATA OF FACTOR NO. 2
NAME : LAND USE

1	5. 4. 3. 5. 5.
2	5. 4. 0. 4. 3. 4.
3	5. 4. 4. 3. 3. 3. 3.
4	5. 3. 5. 3. 3. 3. 4. 4. 3. 3. 3. 3. 3.
5	5. 5. 5. 3. 5. 3. 4. 4. 4. 3. 3. 3. 3. 3.
6	5. 5. 5. 5. 6. 3. 3. 1. 4. 4. 3. 3. 3. 3. 3.
7	5. 5. 3. 5. 4. 4. 5. 4. 4. 4. 4. 3. 3. 3. 3. 3.
8	5. 5. 5. 5. 6. 4. 3. 5. 3. 3. 4. 4. 3. 3. 3. 3. 3.
9	3. 3. 3. 5. 5. 3. 5. 5. 3. 3. 4. 4. 4. 3. 3. 3. 3. 3. 3. 3. 1. 3.
10	3. 3. 3. 3. 4. 4. 4. 4. 4. 3. 5. 3. 3. 5. 2. 5. 3. 5. 5. 3. 5. 4. 4. 4. 3. 1.
11	4. 4. 3. 4. 4. 4. 4. 4. 4. 4. 5. 3. 3. 3. 3. 3. 3. 4. 4. 3. 2. 4. 4. 4. 3. 3. 1.
12	5. 3. 4. 4. 4. 6. 4. 5. 5. 1. 1. 5. 2. 3. 3. 3. 5. 5. 3. 4. 4. 5. 3. 3. 5. 5.
13	6. 3. 4. 4. 3. 4. 3. 4. 5. 6. 3. 2. 4. 4. 3. 3. 3. 5. 5. 3. 3. 4. 3.
14	4. 4. 3. 4. 4. 4. 1. 1. 4. 4. 6. 0. 6. 5. 5. 3. 5. 3. 4. 3. 5. 4.
15	4. 4. 4. 4. 4. 4. 4. 4. 4. 3. 4. 5. 4. 6. 5. 4. 5.
16	4. 4. 4. 5. 4. 4. 3. 4. 4. 4. 5. 1. 1. 1. 6. 5.
17	4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 5. 1. 2. 1.
18	4. 4. 4. 4. 4. 4. 4. 4. 4. 3. 3. 5. 3. 6. 5. 2.
19	5. 5. 5. 3. 4. 4. 4. 4. 4. 4. 5. 2. 3. 6. 5. 5. 5. 5.
20	4. 5. 3. 3. 4. 3. 3. 4. 4. 4. 5. 3. 5. 3. 3. 5. 3. 5. 5.
21	3. 3. 2. 5. 2. 3. 3. 3. 4. 4. 4. 4. 5. 5. 5. 3. 5. 3. 6. 5. 5.
22	5. 3. 5. 1. 2. 2. 2. 2. 4. 4. 4. 4. 5. 5. 5. 5. 6. 6. 6. 3.
23	3. 4. 3. 3. 3. 3. 4. 4. 4. 4. 3. 3. 5. 5. 5. 5. 6. 6. 6. 5.
24	4. 4. 3. 3. 3. 6. 6. 4. 3. 3. 1. 3. 1. 5. 5. 5. 3. 6. 6. 6.
25	4. 4. 4. 3. 3. 3. 3. 5. 4. 2. 5. 3. 5. 5. 5. 5. 3. 3. 5. 4. 5.
26	3. 4. 3. 3. 4. 5. 5. 5. 3. 3. 2. 3. 3. 3. 5. 5. 5. 6. 1. 5. 3. 5.
27	3. 3. 4. 3. 3. 4. 5. 3. 3. 4. 6. 6. 3. 5. 5. 3. 3. 4. 2. 5.
28	5. 5. 5. 5. 3. 5. 5. 4. 3. 5. 4. 3. 3. 3. 6. 2. 3. 3. 2.
29	5. 5. 5. 3. 3. 4. 5. 3. 4. 4. 3. 3. 3. 3. 3. 5. 3. 3. 3.
30	4. 5. 4. 4. 3. 3. 3. 3. 5. 4. 3. 3. 3.
31	4. 5. 4. 4. 3. 3. 3. 3. 3. 3. 3. 3.
32	4. 4. 4. 4. 3. 4. 4. 5. 4. 3. 3. 3.
33	5. 5. 3. 3. 3. 3. 3. 4. 5. 3. 4.
34	5. 5. 5. 3. 3. 3. 3. 3. 3. 6.
35	3. 3. 3. 3. 6. 3. 3. 3.
36	2. 3. 3. 3. 6. 6. 6.
37	6. 0. 1. 3. 6. 5.
38	3. 5. 5.
39	5.

DATA OF FACTOR NO. 3
NAME : SOIL SERIES

1	3. 3. 3. 1. 1.
2	3. 3. 1. 1. 1. 1.
3	3. 3. 3. 1. 3. 1. 1.
4	1. 1. 1. 1. 1. 3. 3. 3. 1. 1. 1. 1. 1.
5	2. 2. 6. 1. 1. 1. 3. 3. 3. 1. 1. 1. 1. 1.
6	1. 6. 3. 3. 3. 1. 1. 1. 3. 3. 3. 1. 1. 1. 1. 1.
7	1. 1. 1. 1. 3. 3. 3. 1. 3. 3. 3. 1. 1. 1. 2. 1.
8	1. 1. 1. 1. 2. 6. 6. 3. 3. 3. 3. 1. 1. 1. 1. 1. 1.
9	3. 3. 1. 1. 1. 1. 1. 1. 3. 1. 1. 1. 3. 3. 3. 1. 2. 1. 1. 1.
10	3. 3. 3. 3. 3. 3. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 3. 3. 3. 1. 2. 1. 1. 1.
11	3. 3. 3. 3. 3. 6. 3. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 3. 3. 2. 3. 1. 1. 2. 2. 1.
12	3. 3. 3. 3. 3. 3. 3. 3. 1. 1. 1. 1. 3. 1. 1. 1. 6. 1. 3. 3. 3. 1. 1. 1. 2. 2.
13	6. 3. 3. 1. 3. 3. 3. 3. 3. 1. 1. 1. 6. 6. 1. 1. 6. 6. 3. 3. 3. 1. 1.
14	3. 3. 3. 3. 1. 6. 6. 3. 6. 6. 3. 1. 6. 6. 6. 5. 6. 6. 3. 3. 6.
15	6. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 6. 6. 6. 1. 1. 3.
16	3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 6. 1. 1. 6. 3. 6.
17	3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 2. 1. 1.
18	6. 1. 3. 3. 3. 6. 3. 3. 3. 3. 3. 2. 6. 6. 3. 1.
19	1. 1. 1. 3. 3. 3. 3. 3. 3. 3. 3. 1. 6. 6. 7. 7. 1. 1.
20	1. 1. 1. 1. 3. 3. 3. 3. 3. 3. 3. 1. 6. 6. 7. 7. 7. 7. 1.
21	3. 3. 1. 1. 1. 1. 3. 3. 3. 3. 3. 3. 3. 3. 6. 3. 7. 6. 6. 7. 1.
22	3. 3. 1. 1. 1. 1. 1. 3. 3. 3. 3. 3. 3. 6. 6. 7. 6. 6. 6. 3.
23	3. 3. 1. 1. 1. 1. 1. 3. 3. 3. 3. 3. 6. 6. 1. 7. 6. 6. 6. 3.
24	3. 3. 1. 1. 1. 1. 1. 1. 3. 1. 1. 1. 1. 4. 4. 1. 6. 6. 6. 6. 3.
25	3. 6. 6. 1. 1. 6. 6. 1. 1. 1. 1. 1. 3. 4. 2. 1. 6. 6. 1. 1. 2.
26	3. 3. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 3. 3. 1. 1. 6. 1. 3. 1. 2.
27	3. 1. 1. 1. 3. 3. 1. 3. 3. 6. 6. 3. 1. 1. 2. 3. 1. 3. 1. 1.
28	3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 1. 1. 1. 1. 6. 1. 3. 3. 3.
29	1. 1. 3. 3. 3. 3. 3. 3. 3. 1. 1. 3. 1. 1. 1. 1. 1. 3. 3.
30	3. 3. 3. 3. 1. 3. 2. 3. 1. 1. 1. 1. 3.
31	6. 3. 3. 3. 1. 3. 3. 1. 1. 1. 1. 1.
32	1. 1. 1. 1. 3. 1. 3. 1. 1. 1. 1. 1.
33	1. 1. 1. 1. 3. 3. 1. 1. 1. 1. 1.
34	1. 1. 3. 3. 3. 6. 1. 1. 1. 1.
35	6. 3. 3. 1. 6. 1. 6. 3.
36	3. 3. 3. 1. 6. 6. 6.
37	3. 6. 1. 3. 3. 1.
38	3. 6. 3.
39	6.

ภาคผนวก ค.

ผลิตผลซึ่งเป็นแผนที่จากระบบข้อมูลโดยคอมพิวเตอร์

ค. ๑ แผนที่ actual scores และ normalized scores

FACTOR 1 SLP (ACTUAL SCORES)

TOPOGRAPHY

INITIAL INPUT WEIGHT = 1.00

(NORMALIZED WEIGHT = 0.10)

CASE STUDY : BAN DONG, JOONTHAWEE, THAILAND

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGNEK

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6.00	5.00	6.00	7.00	7.00	*	*	R1
R2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6.00	6.00	6.00	7.00	7.00	7.00	*	R2
R3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6.00	6.00	6.00	6.00	7.00	7.00	7.00	*	R3
R4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	7.00	6.00	6.00	R4
R5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	6.00	7.00	7.00	7.00	7.00	7.00	R5
R6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7.00	*	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	R6
R7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	R7
R8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	6.00	7.00	7.00	7.00	7.00	7.00	R8
R9	*	*	*	*	*	*	*	*	*	*	6.00	6.00	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	R9
R10	*	*	*	*	*	*	*	*	6.00	6.00	7.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	6.00	5.00	6.00	7.00	7.00	7.00	7.00	7.00	R10
R11	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	5.00	7.00	6.00	7.00	7.00	7.00	7.00	7.00	R11
R12	*	*	7.00	7.00	*	*	*	*	6.00	6.00	6.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	7.00	7.00	6.00	7.00	7.00	7.00	7.00	*	R12
R13	*	*	6.00	6.00	*	*	*	*	5.00	6.00	6.00	6.00	6.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	7.00	6.00	6.00	6.00	7.00	7.00	*	*	*	*	R13
R14	*	*	7.00	6.00	6.00	*	*	7.00	5.00	6.00	7.00	7.00	7.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	7.00	7.00	6.00	7.00	*	*	*	*	*	R14
R15	*	*	7.00	7.00	6.00	*	*	7.00	7.00	6.00	6.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	7.00	*	*	*	*	*	R15
R16	*	*	5.00	7.00	5.00	7.00	6.00	5.00	5.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	6.00	6.00	6.00	5.00	5.00	5.00	5.00	6.00	7.00	6.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	6.00	6.00	6.00	7.00	6.00	6.00	7.00	7.00	7.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	7.00	7.00	6.00	6.00	7.00	5.00	5.00	6.00	6.00	6.00	6.00	7.00	7.00	6.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	6.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	6.00	6.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	6.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	7.00	7.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	7.00	*	7.00	7.00	7.00	7.00	6.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	7.00	7.00	7.00	6.00	5.00	7.00	7.00	7.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	7.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	6.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	7.00	7.00	7.00	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	7.00	7.00	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	7.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MAS- 1 MAS- 1

*** ACTUAL SCORES PRINTOUT SHOULD BE REQUESTED, IF DO NOT RUN ,
COMMAND "MODIFY PRINT CODE" TO DO SO.

MAS-1

TOPOGRAPHY

INITIAL INPUT WEIGHT = 1.00

RECALCULATED WEIGHT = 0.10

COURSE : THESIS 1333
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

LECTURER : ASS. PROF. DR. WICHA DEWALAI
STUDENT : SUTHICHAI SIENGNARK

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	0.0	50.00	100.00	100.00	*	*	*	*	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	100.00	100.00	100.00	100.00	*	*	*	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	*	*	*	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	50.00	100.00	50.00	50.00	*	*	*	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	50.00	50.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	*	*	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	R 8
R 9	*	*	*	*	*	*	*	*	*	*	50.00	50.00	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	R 9
R10	*	*	*	*	*	*	*	*	50.00	50.00	100.00	100.00	50.00	50.00	0.0	50.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	50.00	100.00	100.00	100.00	100.00	R10
R11	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	0.0	100.00	50.00	100.00	100.00	100.00	100.00	100.00	R11
R12	*	*	*	*	*	100.00	100.00	*	*	*	*	*	50.00	50.00	50.00	100.00	0.0	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	R12
R13	*	*	*	50.00	50.00	*	*	*	*	*	*	*	0.0	50.00	50.00	50.00	50.00	0.0	100.00	100.00	100.00	100.00	100.00	50.00	50.00	100.00	100.00	100.00	50.00	100.00	100.00	*	*	R13
R14	*	*	*	100.00	50.00	50.00	*	*	*	100.00	0.0	50.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	100.00	100.00	50.00	100.00	*	*	R14
R15	*	*	*	100.00	100.00	50.00	*	*	100.00	100.00	100.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	100.00	*	*	*	R15
R16	*	*	*	0.0	100.00	0.0	100.00	50.00	0.0	0.0	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	*	50.00	50.00	50.00	0.0	0.0	0.0	0.0	50.00	100.00	50.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	*	50.00	50.00	50.00	100.00	50.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	*	100.00	100.00	50.00	50.00	100.00	0.0	0.0	50.00	50.00	50.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R20
R21	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R21
R22	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R22
R23	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R23
R24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R24
R25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R25
R26	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R26
R27	100.00	*	*	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	*	100.00	100.00	100.00	50.00	50.00	50.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	*	*	*	*	*	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	100.00	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	100.00	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MNS- 1 MNS- 1

**** NORMAL SCORES PRINTOUT SHOULD BE REQUESTED, IF YOU DO NOT WANT.
COMMAND AND/OR USING CODE 'OP' TO OPTN.

MNS-1

FACTOR : LDU FACTOR (LCRST

LAND USE

INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

CASE STUDY : SAN KONG, UBONTHANI, THAILAND

COURSE : THESIS 1313
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. WICHA DIWALAI
STUDENT : SUTHICHAI SIENGNIRN

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	4.00	3.00	5.00	5.00	*	*	*	*	*	*	R1
R2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	4.00	3.00	4.00	3.00	4.00	*	*	*	*	*	R2
R3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	4.00	4.00	3.00	3.00	3.00	3.00	*	*	*	*	*	R3
R4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	5.00	3.00	3.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	R4
R5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	0.0	3.00	5.00	3.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R5
R6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	*	3.0	3.0	0.0	3.0	5.00	5.00	1.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	R6
R7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	0.0	3.0	0.0	4.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	R7
R8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	0.0	0.0	0.0	5.00	3.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	R8
R9	*	*	*	*	*	*	*	*	*	3.00	3.00	*	*	*	4.00	3.00	3.00	3.00	3.00	3.00	0.0	3.00	3.00	2.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	1.00	0.0	R9
R10	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	4.00	4.00	4.00	1.00	1.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	0.0	4.00	4.00	4.00	4.00	3.00	1.00	R10
R11	*	*	*	*	*	*	4.00	4.00	3.00	4.00	4.00	0.0	4.00	1.00	1.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	3.00	2.00	4.00	4.00	4.00	4.00	3.00	3.00	1.00	R11
R12	*	*	5.00	3.00	*	*	*	*	4.00	4.00	4.00	0.0	0.0	0.0	5.00	1.00	1.00	5.00	3.0	3.00	3.00	3.00	5.00	5.00	3.00	4.00	0.0	5.00	3.00	3.00	5.00	5.00	*	R12
R13	*	*	0.0	3.00	*	*	*	*	4.00	4.00	3.00	4.00	3.00	0.0	0.0	0.0	3.00	2.00	4.00	4.00	3.00	3.00	3.00	5.00	5.00	0.0	3.00	4.00	3.00	*	*	*	*	R13
R14	*	*	4.00	4.00	3.00	*	*	4.00	4.00	4.00	1.00	3.00	4.00	0.0	0.0	0.0	3.0	3.00	3.00	3.00	3.00	3.00	*	*	4.00	3.00	5.00	4.00	*	*	*	*	*	R14
R15	*	*	4.00	4.00	4.00	*	4.00	4.00	4.00	4.00	4.00	4.00	3.00	0.0	5.00	0.0	3.0	5.00	4.00	*	*	*	*	*	*	*	*	5.00	*	*	*	*	*	R15
R16	*	*	4.00	4.00	4.00	5.00	4.00	4.00	3.00	4.00	4.00	4.00	5.00	1.00	1.00	1.00	0.0	5.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	2.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	0.0	4.00	4.00	4.00	4.00	0.0	4.00	4.00	4.00	3.00	3.00	5.00	3.00	0.0	3.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	5.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	2.00	3.00	0.0	5.00	5.00	3.00	*	5.00	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	4.00	5.00	3.00	3.00	4.00	3.00	3.00	4.00	4.00	4.00	4.00	3.00	5.00	3.00	3.00	5.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	3.00	3.00	2.00	3.00	2.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	0.0	5.00	0.0	3.0	5.00	5.00	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	5.00	3.00	5.00	1.00	2.00	2.00	2.00	2.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	0.0	0.0	3.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	3.00	4.00	3.00	3.00	5.00	2.00	4.00	4.00	4.00	4.00	3.00	3.00	5.00	5.00	5.00	5.00	0.0	0.0	3.0	5.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	4.00	4.00	5.00	5.00	5.00	0.0	0.0	4.00	3.00	3.00	1.00	3.00	1.00	5.00	5.00	5.00	0.0	0.0	3.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	4.00	0.0	0.0	4.00	5.00	0.0	0.0	3.00	0.0	2.00	5.00	3.00	5.00	5.00	5.00	5.00	3.0	0.0	3.00	4.00	5.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	3.00	4.00	5.00	3.00	4.00	5.00	5.00	5.00	3.00	2.00	3.00	3.00	3.00	5.00	5.00	5.00	0.0	1.00	4.00	3.00	5.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	3.00	*	5.00	4.00	3.00	5.00	4.00	5.00	5.00	3.00	0.0	0.0	0.0	3.00	5.00	5.00	0.0	3.00	4.00	2.00	5.00	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	5.00	5.00	3.00	3.00	3.00	5.00	5.00	4.00	5.00	5.00	4.00	3.00	3.00	3.00	0.0	2.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	5.00	5.00	3.00	3.00	3.00	4.00	5.00	5.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	5.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	4.00	5.00	4.00	4.00	3.00	3.00	3.00	3.00	5.00	4.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	4.00	5.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	2.00	4.00	4.00	4.00	3.00	4.00	4.00	5.00	4.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	5.00	5.00	5.00	5.00	2.00	3.00	3.00	4.00	3.00	3.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	5.00	5.00	3.00	2.00	0.0	3.00	3.00	3.00	3.00	3.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	0.0	5.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	0.0	0.0	3.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	2.00	0.0	1.00	4.00	0.0	5.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	3.00	5.00	5.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	5.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MAS- 2 MAS- 2

626

**** ACTUAL SCORES PRINTOUT SHOULD BE REQUESTED,IF DO NOT WANT.
COMMAND 'NOPRT' USING CODE '00' TO OPTA.

FACTOR 3 LOD (NORMALISED SCORES)

LAND USE

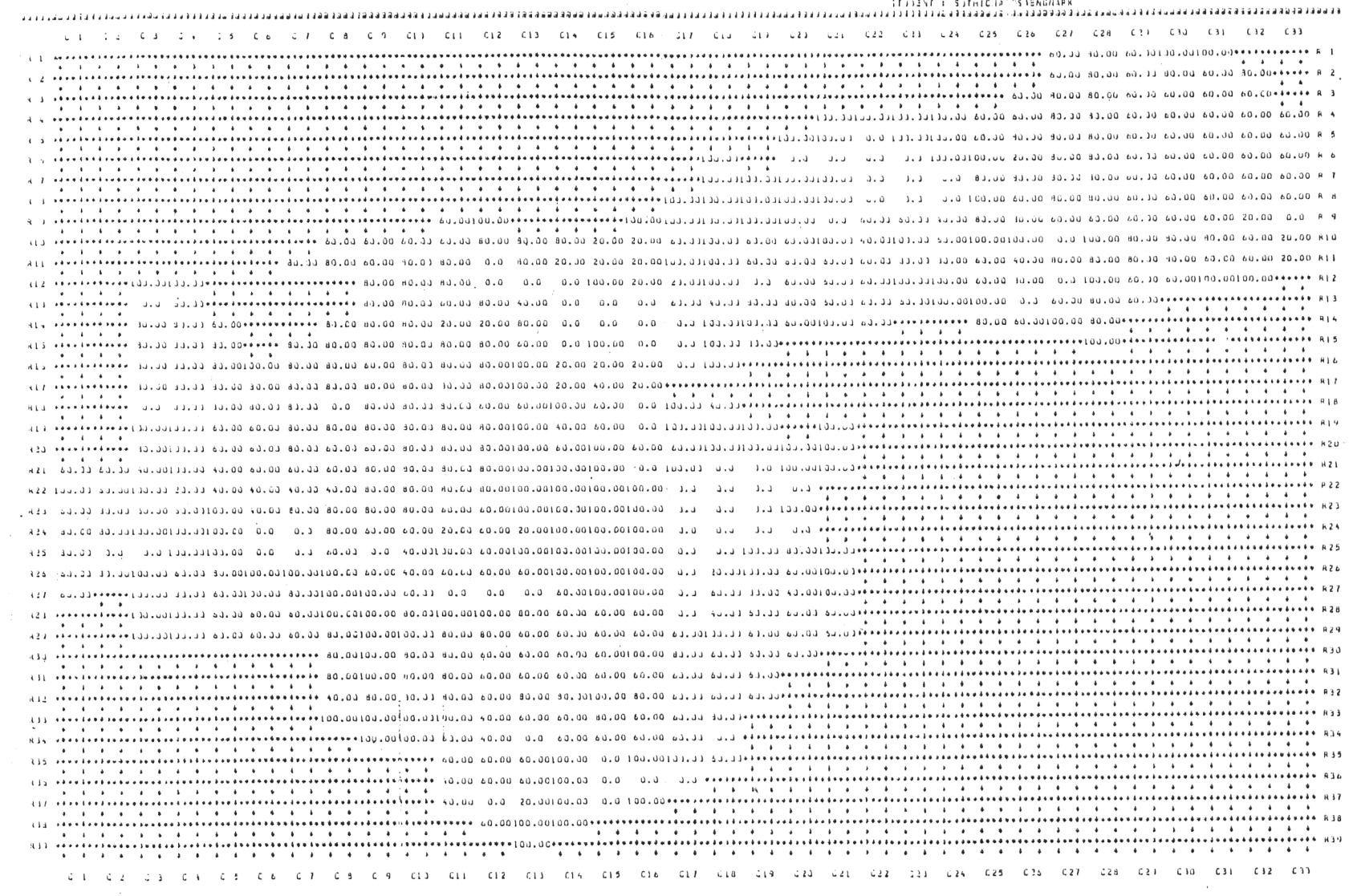
INITIAL INPUT WEIGHT = 1.00

ACCUMULATED WEIGHT = 0.10

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN SUNG, CHONTHANEE, THAILAND

COURSE : THESIS 1993
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SITHICHAI SIENGNARK



MNS- 2

MNS- 2

**** (RAW SCORES PRINTOUT COULD BE REQUESTED, IF SO NOT WAIT.
COMMAND ENDED USING CODE '03' TO OPTN.

FACTOR 3 SOIL (ACTUAL SCORES)

SOIL SERIES

INITIAL INPUT WEIGHT = 1.00

(INTERPOLATED WEIGHT = 0.10

LEARNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
SITE STUDY : BAN DONG, UDONTHANEE, THAILAND

COURSE : THESIS 1111
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

LECTURER : ASS. PROF. DR. WICHIT SIWAWUT
STUDENT : SUTHICHAI SIENGWARK

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
C1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	1.00	1.00	*	*	R 1
C2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	1.00	1.00	1.00	*	R 2
C3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	1.00	3.00	1.00	1.00	*	R 3
C4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	3.00	3.00	3.00	1.00	1.00	1.00	1.00	1.00	R 4
C5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	2.00	0.0	1.00	1.00	1.00	3.00	3.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	R 5
C6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	*	0.0	0.0	0.0	1.00	1.00	3.00	3.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	R 6
C7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	0.0	0.0	0.0	1.00	3.00	3.00	3.00	1.00	1.00	1.00	2.00	1.00	R 7
C8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	2.00	0.0	0.0	0.0	1.00	3.00	3.00	3.00	1.00	1.00	1.00	1.00	R 8
C9	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	0.0	1.00	1.00	1.00	3.00	3.00	3.00	1.00	2.00	1.00	1.00	R 9
C10	*	*	*	*	*	*	*	*	3.00	1.00	3.00	3.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	3.00	0.0	1.00	1.00	2.00	1.00	1.00	R10
C11	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	0.0	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	3.00	2.00	1.00	1.00	1.00	2.00	2.00	1.00	R11
C12	*	*	*	*	1.00	1.00	*	*	*	*	3.00	3.00	3.00	0.0	0.0	0.0	1.00	1.00	1.00	0.0	1.00	1.00	6.00	1.00	3.00	3.00	0.0	1.00	1.00	1.00	2.00	2.00	*	R12
C13	*	*	*	*	0.0	1.00	*	*	*	*	3.00	1.00	3.00	3.00	3.00	0.0	0.0	0.0	1.00	1.00	1.00	3.00	1.00	1.00	3.0	6.00	3.00	0.0	3.00	1.00	1.00	*	*	R13
C14	*	*	*	*	3.00	3.00	1.00	*	*	*	6.00	6.00	6.00	3.0	0.0	0.3	0.0	1.00	6.00	3.00	3.00	3.00	*	*	6.00	3.00	3.00	0.0	*	*	*	*	*	R14
C15	*	*	*	*	3.00	3.00	1.00	*	3.00	3.00	3.00	3.00	3.00	3.00	0.0	6.00	0.0	3.0	1.00	*	*	*	*	*	*	*	*	3.00	*	*	*	*	*	R15
C16	*	*	*	*	3.00	3.00	1.00	3.00	3.00	3.00	3.00	3.00	6.00	1.00	1.00	6.00	3.0	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
C17	*	*	*	*	3.00	3.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
C18	*	*	*	*	0.0	1.00	1.00	3.00	3.00	0.0	3.00	3.00	3.00	2.00	6.00	0.0	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
C19	*	*	*	*	1.00	1.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	1.00	6.00	0.0	7.00	7.00	1.00	*	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	*	*	1.00	1.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	1.00	5.00	6.00	7.00	7.00	7.00	7.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	3.00	3.00	1.00	1.00	1.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	0.0	7.00	0.0	3.0	7.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	3.00	3.00	1.00	1.00	1.00	1.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	7.00	3.0	0.0	3.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	3.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	1.00	7.00	3.0	0.0	3.0	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	3.00	3.00	1.00	1.00	1.00	0.0	0.0	1.00	3.00	1.00	1.00	1.00	3.00	4.00	4.00	1.00	3.0	0.0	3.0	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	3.00	3.0	0.0	1.00	1.00	0.0	0.0	1.00	0.0	1.00	1.00	1.00	3.00	4.00	2.00	1.00	3.0	3.0	1.00	1.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	3.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	3.00	1.00	1.00	3.0	1.00	3.00	1.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	3.00	*	1.00	1.00	1.00	3.00	3.00	1.00	3.00	3.00	3.0	0.0	0.0	1.00	1.00	2.00	3.0	1.00	3.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	3.00	3.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	1.00	1.00	1.00	1.00	3.0	1.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	1.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	1.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	1.00	3.00	2.00	3.00	1.00	1.00	1.00	1.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	2.00	3.00	3.00	3.00	1.00	3.00	2.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	3.00	1.00	3.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	3.00	3.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	1.00	1.00	6.00	3.00	3.00	0.0	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	*	6.00	3.00	3.00	1.00	0.0	1.00	5.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	1.00	0.0	0.0	3.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	3.00	0.0	1.00	3.00	0.0	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	3.00	6.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MAS- 3 MAS- 3

**** ACTUAL SCORES PRINTOUT SHOULD BE REQUESTED,IF DO NOT WANT.
DEMAND PRODUCE USING CODE '01' TO DATA.

MATCH 3 SOL (NORMALISED SCORES)

SOIL SERIES

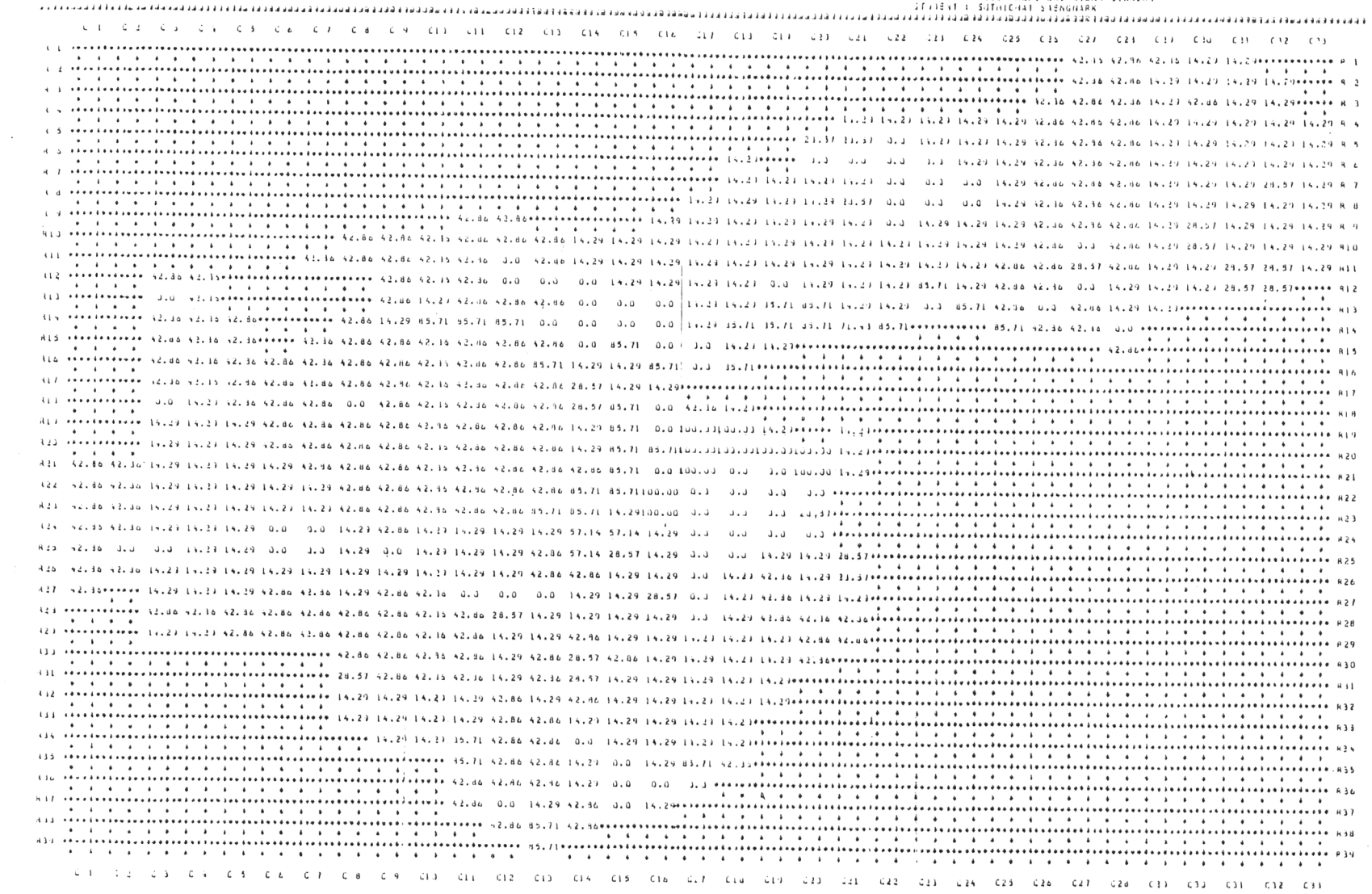
INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

MAPPING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
AREA STUDY : SAI NOKHON, UDONTHANI, THAILAND

CITIZE : THESIS
: DEPART. OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. VICHY SIWALAI
STUDENT : SUTHICHAI SIENGWIRK



MNS- 3

MNS- 3

**** FINAL SCORES PRINTOUT WILL BE REQUESTED, IF DO NOT WANT.
.DEFINE INPUT USING CODE UP TO OPTN.

MNS-3

226

FACTOR = FLO (ACTUAL SCORES)

FLOODING.

INITIAL INPUT WEIGHT = 1.00

INTERPOLATED WEIGHT = 0.10

PLACEMENT FEASIBILITY : POTENTIAL SURFACE ANALYSIS (PSA)
SITE SELECTION FOR DAMS, RESERVOIRS, CHECK DAMS

DEGREE : THESIS
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ANALYSER : ASS. PROF. DR. MICHI SEKALI
STUDENT : SOMCHAI SEENGNARK

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	0.0	0.0	*	*	*	*	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	0.0	0.0	*	*	*	*	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R 8
R 9	*	*	*	*	*	*	*	*	*	2.00	2.00	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R 9
R10	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R10
R11	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R11
R12	*	*	2.00	2.00	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	R12
R13	*	*	2.00	2.00	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	R13
R14	*	*	2.00	2.00	2.00	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	2.00	2.00	2.00	2.00	*	*	*	*	*	R14
R15	*	*	2.00	2.00	2.00	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	2.00	*	*	*	*	*	R15
R16	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	2.00	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	0.0	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MAS- 4

MAS- 4

**** ACTUAL SCORES PRINTOUT SHOULD BE REQUESTED,IF DO NOT WANT.
DISPLAY ISAPLY USING CODE 'P' TO OPTA.

FACTOR 5 FLOW (NORMALIZED SCORES)

PLOTTING.

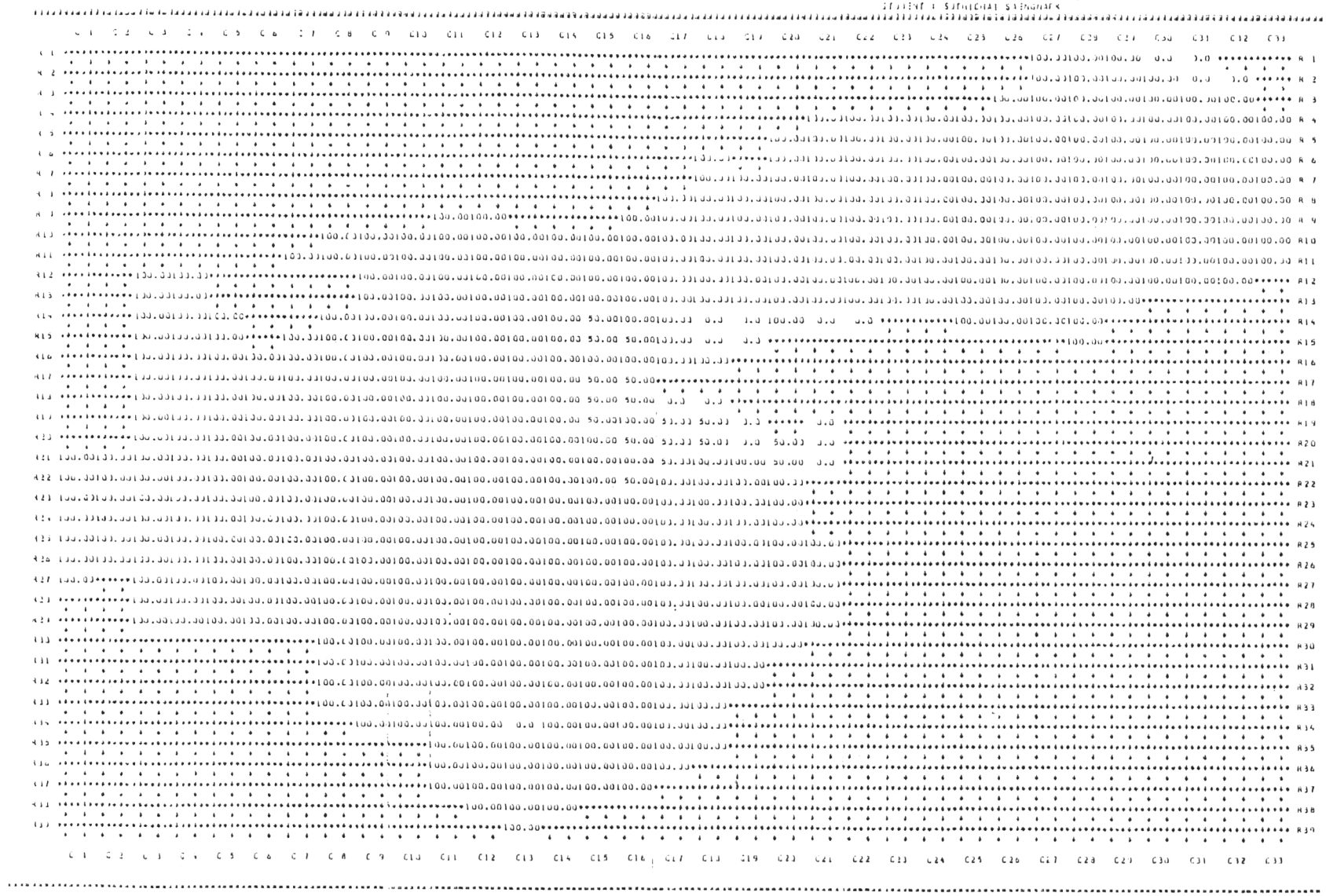
TOTAL INPUT WEIGHT = 1.00

(NORMALIZED) WEIGHT = 0.10

PLOTTED TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAY BONG, SUNDARBANS, INDIA

CLASS : THESIS
: DEPARTMENT OF SURVEY ENGINEERING
: CHITTAGONG UNIVERSITY

STUDENT : ASS. PROF. M. NIZAM UDDIN
STUDENT : SUFIYAN SARKAR



MNS- 4

MNS- 4

**** TOTAL SCORES MATRIX WILL BE REQUESTED. IF NO NOT WANT, COMMAND INDEX USING CODE FOR TO OPTN.

FACTOR 5 SFR (ACTUAL SCORES)

SUITABILITY FOR ACE.

INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN NONG, UDONTHANEE, (THAILAND)

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

LECTURER : ASS. PROF. DR. MICHA JIWALAI
STUDENT : SUTHICHAI SAENGNAPA

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	*	*	R1
R2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	4.00	1.00	*	R2
R3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	4.00	4.00	1.00	*	R3
R4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	R4
R5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	1.00	0.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	R5
R6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	*	0.0	0.0	0.0	0.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	R6
R7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	0.0	0.0	0.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	1.00	R7
R8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	4.00	0.0	0.0	0.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	R8
R9	*	*	*	*	*	*	*	*	*	*	1.00	1.00	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	0.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	1.00	1.00	1.00	R9
R10	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.0	1.00	1.00	4.00	1.00	1.00	1.00	R10
R11	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	0.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	1.00	R11
R12	*	1.00	1.00	*	*	*	*	*	1.00	1.00	1.00	0.0	0.0	0.0	1.00	1.00	1.00	1.00	3.0	1.00	1.00	1.00	4.00	4.00	1.00	1.00	0.0	1.00	1.00	1.00	4.00	4.00	*	R12
R13	0.0	1.00	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	0.0	0.0	0.0	1.00	1.00	4.00	4.00	1.00	1.00	3.0	4.00	1.00	0.0	1.00	1.00	1.00	*	*	*	*	R13
R14	*	1.00	1.00	1.00	*	*	*	1.00	1.00	4.00	4.00	1.00	4.00	0.0	0.0	0.0	3.0	1.00	4.00	4.00	4.00	5.00	*	*	4.00	4.00	4.00	1.00	*	*	*	*	*	R14
R15	*	1.00	1.00	1.00	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.0	4.00	0.0	0.0	4.00	2.00	*	*	*	*	*	*	*	*	1.00	*	*	*	*	*	R15
R16	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	1.00	1.00	4.00	3.0	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	0.0	1.00	1.00	1.00	1.00	0.0	1.00	1.00	1.00	1.00	1.00	1.00	4.00	0.0	4.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	0.0	1.00	3.00	2.00	*	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	4.00	4.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	0.0	4.00	0.0	0.0	4.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	4.00	3.0	3.0	3.0	3.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	1.00	4.00	0.0	0.0	3.0	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	1.00	1.00	1.00	1.00	1.00	0.0	0.0	1.00	1.00	1.00	1.00	1.00	1.00	3.00	4.00	4.00	3.0	3.0	3.0	3.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	1.00	0.0	0.0	1.00	1.00	0.0	0.0	1.00	0.0	1.00	1.00	1.00	1.00	3.00	4.00	1.00	3.0	3.0	1.00	1.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.0	1.00	1.00	1.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	1.00	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.0	0.0	0.0	1.00	1.00	1.00	0.0	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.0	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	1.00	1.00	4.00	1.00	4.00	0.0	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	4.00	1.00	1.00	1.00	0.0	1.00	4.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	0.0	0.0	1.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	1.00	0.0	1.00	1.00	0.0	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	1.00	4.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MAS- 5

MAS- 5

**** ACTUAL SCORES MATRIX SHOULD BE REQUESTED,IF DO NOT WANT.
CHANGE MATRIX USING CODE NO 10 OPTS.

FACTOR 5 SPH (NORMALISED SCORES)

SUITABILITY FOR RICE.

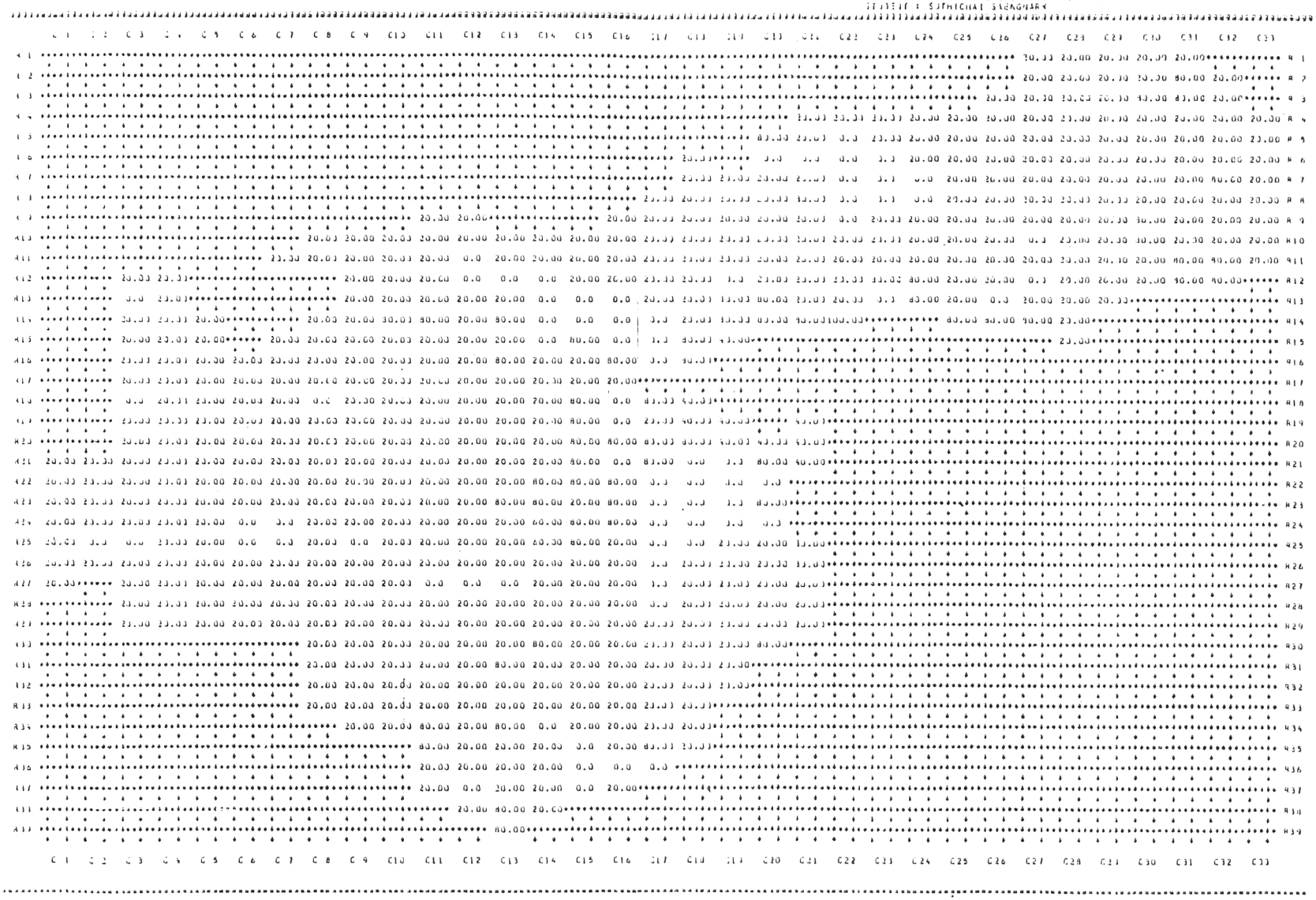
INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

CASE STUDY : BAN DONG, UDONTHANEE, THAILAND

STAGE : THESIS (III)
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. NICHA DINALAT
STUDENT : SUTHICHAI SEANGNARK



MNS- 5

MNS- 5

**** FINAL SCORES PRINTOUT SHOULD BE REQUESTED, IF DO NOT WANT.
COMMAND INDEX USING CODE FOR TO DATA.

FACTOR & SFP (ACTUAL SCORES)

SUITABILITY FOR OTHER PLANTS.

(INITIAL INPUT WEIGHT = 1.00

(INTPOLATED WEIGHT = 0.10

CASE STUDY : BIG DONG, JOHOR(MIRE, THAILAND)

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. ACHAI DIMALAI
STUDENT : SUTHICHAI SIENGNIRN

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	1.00	1.00	*	*
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	1.00	1.00	1.00	1.00	*
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	1.00	4.00	1.00	1.00
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	4.00	4.00	4.00	1.00	1.00	1.00	1.00
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	3.00	3.0	1.00	1.00	1.00	4.00	4.00	4.00	1.00	1.00	1.00
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	*	*	3.0	3.0	3.0	3.0	1.00	1.00	4.00	4.00	4.00	1.00	1.00	1.00
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	3.0	3.0	3.0	1.00	4.00	4.00	4.00	1.00	1.00	1.00	3.00
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	3.0	3.0	3.0	1.00	4.00	4.00	4.00	1.00	1.00	1.00	1.00	1.00
R 9	*	*	*	*	*	*	*	*	*	4.00	4.00	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	3.0	1.00	1.00	1.00	4.00	4.00	4.00	1.00	3.00	1.00	1.00	1.00
R10	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	0.0	4.00	1.00	3.00	1.00	1.00	1.00
R11	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	0.0	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	3.00	4.00	1.00	1.00	3.00	3.00	1.00
R12	*	*	*	*	*	*	*	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R13	*	*	*	*	*	*	*	*	*	4.00	1.00	4.00	4.00	4.00	0.0	0.0	0.0	1.00	1.00	1.00	1.00	3.0	1.00	1.00	1.00	5.00	1.00	4.00	4.00	0.0	1.00	1.00	1.00
R14	*	*	*	*	*	*	*	*	*	4.00	4.00	1.00	5.00	5.00	5.00	0.0	0.0	0.0	3.0	1.00	5.00	5.00	5.00	5.00	5.00	1.00	0.0	5.00	4.00	0.0	4.00	1.00	1.00
R15	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	4.00	4.00	0.0	5.00	0.0	3.0	1.00	2.00	*	*	*	*	*	*	*	*	*	4.00	*	*
R16	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	4.00	5.00	1.00	1.00	5.00	3.0	5.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R17	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	4.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R18	*	*	*	*	*	*	*	*	*	0.0	1.00	1.00	1.00	1.00	1.00	1.00	5.00	0.0	3.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R19	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	0.0	3.00	2.00	2.00	*	3.0	*	*	*	*	*	*	*	*	*	*
R20	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	4.00	4.00	4.00	4.00	4.00	1.00	5.00	5.00	3.00	3.00	1.00	3.00	2.00	*	*	*	*	*	*	*	*
R21	4.00	4.00	1.00	1.00	1.00	1.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	0.0	3.00	3.0	3.0	5.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*
R22	4.00	4.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	3.0	3.0	3.0	3.0	*	*	*	*	*	*	*	*	*	*	*	*	*
R23	4.00	4.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	1.00	5.00	3.0	3.0	3.0	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R24	4.00	4.00	1.00	1.00	1.00	1.00	0.0	0.0	1.00	4.00	1.00	1.00	1.00	1.00	3.00	3.00	1.00	3.0	3.0	3.0	3.0	*	*	*	*	*	*	*	*	*	*	*	*
R25	4.00	3.0	3.0	1.00	1.00	0.0	0.0	1.00	3.0	1.00	1.00	1.00	4.00	3.00	3.00	1.00	3.0	3.0	1.00	1.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*
R26	4.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	1.00	1.00	3.0	1.00	4.00	1.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*
R27	4.00	*	1.00	1.00	1.00	4.00	4.00	1.00	4.00	4.00	0.0	0.0	0.0	1.00	1.00	3.00	3.0	1.00	4.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*
R28	*	*	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.00	1.00	1.00	1.00	1.00	3.0	1.00	1.00	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*
R29	*	*	1.00	1.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*
R30	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	1.00	4.00	3.00	4.00	1.00	1.00	1.00	1.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R31	*	*	*	*	*	*	*	3.00	4.00	4.00	4.00	1.00	4.00	3.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R32	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	4.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R33	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	4.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R34	*	*	*	*	*	*	*	*	1.00	1.00	5.00	4.00	4.00	0.0	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R35	*	*	*	*	*	*	*	*	*	5.00	4.00	4.00	1.00	3.0	1.00	5.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R36	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	1.00	0.0	0.0	3.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R37	*	*	*	*	*	*	*	*	*	4.00	0.0	1.00	4.00	0.0	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R38	*	*	*	*	*	*	*	*	*	*	4.00	5.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R39	*	*	*	*	*	*	*	*	*	*	*	5.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

MAS- 6

MAS- 6

***** ACTUAL SCORES PRINTOUT SHOULD BE REQUESTED,IF DO NOT WANT.
COMMAND ENTER USING CODE '3' TO OPTA.

FACTOR 6 SFP (NORMALIZED SCORES)

SUITABILITY FOR OTHER PLANTS.

INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN JUN, UDONTHANEE, THAILAND

COURSE : THESIS 1993
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. WICHA JIWALAT
STUDENT : SUTHICHAI SAENGNARK

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	80.00	80.00	80.00	20.00	20.00	*	*	*	*	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	80.00	80.00	20.00	20.00	20.00	20.00	*	*	*	*	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	80.00	80.00	80.00	20.00	80.00	20.00	20.00	*	*	*	*	*	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20.00	20.00	20.00	20.00	20.00	80.00	80.00	80.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	80.00	80.00	0.0	20.00	20.00	20.00	80.00	80.00	80.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20.00	*	0.0	0.0	0.0	0.0	20.00	20.00	80.00	80.00	80.00	20.00	20.00	20.00	20.00	20.00	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20.00	20.00	20.00	20.00	0.0	0.0	0.0	20.00	80.00	80.00	80.00	20.00	20.00	20.00	60.00	20.00	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20.00	20.00	20.00	20.00	80.00	0.0	0.0	0.0	20.00	80.00	80.00	80.00	20.00	20.00	20.00	20.00	R 8
R 9	*	*	*	*	*	*	*	*	*	*	80.00	80.00	*	*	*	*	*	20.00	20.00	20.00	20.00	20.00	80.00	0.0	20.00	20.00	20.00	80.00	80.00	80.00	20.00	60.00	20.00	R 9
R10	*	*	*	*	*	*	*	*	*	80.00	80.00	80.00	80.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	80.00	0.0	80.00	20.00	60.00	20.00	20.00	20.00	R10
R11	*	*	*	*	*	*	*	*	*	80.00	80.00	80.00	80.00	0.0	80.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	80.00	80.00	60.00	80.00	20.00	60.00	60.00	60.00	20.00	R11
R12	80.00	80.00	*	*	*	*	*	*	80.00	80.00	0.0	0.0	0.0	20.00	20.00	20.00	20.00	0.0	20.00	20.00	20.00	100.00	20.00	20.00	80.00	0.0	20.00	20.00	20.00	60.00	60.00	0.0	*	R12
R13	*	0.0	80.00	*	*	*	*	*	80.00	20.00	80.00	80.00	80.00	0.0	0.0	0.0	20.00	80.00	80.00	100.00	80.00	20.00	0.0	100.00	80.00	0.0	80.00	20.00	20.00	*	*	*	*	R13
R14	*	80.00	80.00	80.00	*	*	*	*	80.00	80.00	20.00	100.00	100.00	100.00	0.0	0.0	0.0	0.0	20.00	80.00	100.00	80.00	80.00	100.00	*	*	*	*	*	100.00	100.00	80.00	80.00	R14
R15	*	80.00	80.00	80.00	*	*	80.00	80.00	80.00	80.00	80.00	80.00	80.00	0.0	100.00	0.0	0.0	20.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	*	80.00	R15
R16	*	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	100.00	20.00	20.00	100.00	0.0	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	20.00	20.00	20.00	20.00	20.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	0.0	20.00	20.00	20.00	20.00	0.0	20.00	20.00	20.00	20.00	20.00	20.00	100.00	0.0	80.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	20.00	20.00	20.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	20.00	100.00	0.0	100.00	80.00	80.00	*	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	20.00	20.00	20.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	20.00	100.00	100.00	100.00	80.00	100.00	80.00	80.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	80.00	80.00	20.00	20.00	20.00	20.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	100.00	0.0	100.00	0.0	0.0	100.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	80.00	80.00	20.00	20.00	20.00	20.00	20.00	80.00	80.00	80.00	80.00	80.00	80.00	100.00	100.00	100.00	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	80.00	80.00	20.00	20.00	20.00	20.00	20.00	80.00	80.00	80.00	80.00	80.00	100.00	100.00	20.00	100.00	0.0	0.0	0.0	80.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	80.00	80.00	20.00	20.00	20.00	0.0	0.0	20.00	80.00	20.00	20.00	20.00	20.00	60.00	60.00	20.00	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	80.00	0.0	0.0	20.00	20.00	0.0	0.0	20.00	0.0	20.00	20.00	20.00	80.00	60.00	60.00	20.00	0.0	0.0	20.00	20.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	80.00	80.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	80.00	80.00	20.00	20.00	0.0	20.00	80.00	20.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	80.00	*	*	20.00	20.00	20.00	80.00	80.00	20.00	80.00	80.00	0.0	0.0	0.0	20.00	20.00	60.00	0.0	20.00	80.00	20.00	80.00	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	60.00	20.00	20.00	20.00	20.00	0.0	20.00	80.00	80.00	80.00	80.00	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	20.00	20.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	20.00	20.00	80.00	20.00	20.00	20.00	20.00	20.00	20.00	80.00	80.00	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	80.00	80.00	80.00	80.00	20.00	80.00	60.00	80.00	20.00	20.00	20.00	20.00	20.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	80.00	80.00	80.00	80.00	20.00	80.00	60.00	20.00	20.00	20.00	20.00	20.00	20.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	20.00	20.00	20.00	20.00	80.00	20.00	60.00	20.00	20.00	20.00	20.00	20.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	20.00	20.00	20.00	20.00	80.00	80.00	20.00	20.00	20.00	20.00	20.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	20.00	20.00	100.00	80.00	80.00	0.0	20.00	20.00	20.00	20.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	100.00	80.00	80.00	20.00	0.0	20.00	100.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	80.00	80.00	80.00	20.00	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	80.00	0.0	20.00	80.00	0.0	20.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	80.00	100.00	80.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MNS- 6 MNS- 6

**** NORMAL SCORES PRINTOUT ISSUED BE REQUESTED, IF DO NOT WANT.
COMMAND ENDFIL USING CODE FOR TO OPTN.

FACTOR 7 WITH (ACTUAL SCORES)

(ITEM ACCESSIBILITY.

INITIAL INPUT WEIGHT = 1.00

(INTERPOLATED WEIGHT = 0.10

(SCALE (ACTIVE POTENTIAL SURFACE ANALYSIS (PSA)
(SITE STUDY (BIG DONG, DONTHANGEE, THAILAND)

(STAGE (THESIS 1993
(DEPARTMENT OF SURVEY ENGINEERING
(CHULALONGKORN UNIVERSITY

(ADVISER (ASS. PROF. DR. WICHA SINALAI
(STUDENT (SUMMICHAI SIENSAWAK

	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 8
R 9	*	*	*	*	*	*	*	*	3.00	3.00	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 9
R10	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R10
R11	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	R11
R12	*	3.00	3.00	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	*	R12
R13	*	3.00	3.00	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	R13
R14	*	3.00	3.00	3.00	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	*	1.00	1.00	1.00	*	*	*	*	*	*	*	R14
R15	*	3.00	3.00	3.00	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	1.00	*	*	*	*	*	R15
R16	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	3.00	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	*	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	*	3.00	3.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	*	3.00	3.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	*	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	*	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	*	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MAS- 7

**** (ACTUAL SCORES) PRINTOUT SHOULD BE REQUESTED,IF YOU NOT WANT.
COMMAND 'INITIAL' USING CODE '3' TO OPTA.

FACTOR 7 WITH (NORMALISED SCORES)

WITH ACCESSIBILITY.

INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

PROJECT : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN SONG, SONTHANEE, THAILAND

STAGE : THESIS 1993
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. WICHA JEWALAI
STUDENT : SUTHICHAI SARNGNARN

	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	R 8
R 9	*	*	*	*	*	*	*	*	*	*	100.00	100.00	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	R 9
R10	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	R10
R11	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	R11
R12	*	*	*	100.00	100.00	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	0.0	0.0	0.0	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	*	R12
R13	*	*	*	100.00	100.00	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	R13
R14	*	*	*	100.00	100.00	100.00	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	0.0	0.0	0.0	*	*	*	0.0	0.0	0.0	0.0	*	*	*	R14
R15	*	*	*	100.00	100.00	100.00	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	0.0	*	*	*	*	*	*	0.0	*	*	*	*	*	R15
R16	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	0.0	0.0	0.0	*	0.0	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	100.00	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	*	100.00	100.00	100.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	*	100.00	100.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	*	100.00	100.00	50.00	50.00	0.0	0.0	0.0	50.00	50.00	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	*	100.00	100.00	50.00	50.00	0.0	0.0	0.0	0.0	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	*	50.00	50.00	0.0	0.0	0.0	0.0	0.0	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	*	0.0	0.0	0.0	0.0	0.0	50.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MNS- 7

**** NORMAL SCORES PRINTOUT SHOULD BE REQUESTED, IF DO NOT WANT.
COMMAND ENDSY USING CODE 101 TO OPTN.

ACCESSIBILITY OF ROAD.

INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

COURSE : THESIS 1113
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. WICHA SIWALAI
STUDENT : SUTHICHAI SAENGNARK

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	4.00	4.00	4.00	5.00	*	*
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	4.00	4.00	5.00	5.00	5.00	*
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	4.00	4.00	5.00	5.00	5.00	*
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5.00	*	*	4.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00
R 9	*	*	*	*	*	*	*	*	*	*	*	4.00	3.00	*	*	4.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
R10	*	*	*	*	*	*	*	3.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
R11	*	*	*	*	*	*	3.00	3.00	3.00	4.00	4.00	4.00	3.00	3.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
R12	*	*	*	4.00	4.00	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	*
R13	*	*	*	3.00	4.00	*	*	*	3.00	3.00	3.00	2.00	3.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*
R14	*	*	*	3.00	4.00	4.00	*	*	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	3.00	3.00	3.00	3.00	*	*	*	*	*	*
R15	*	*	*	3.00	4.00	4.00	*	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	3.00	*	*	*	*	*	*
R16	*	*	*	3.00	4.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	2.00	2.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R17	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R18	*	*	*	1.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R19	*	*	*	3.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	*	*	2.00	*	*	*	*	*	*	*	*	*	*	*
R20	*	*	*	3.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*
R21	4.00	4.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	3.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R22	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	4.00	4.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R23	4.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R24	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R25	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R26	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R27	1.00	*	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R28	*	*	1.00	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R29	*	*	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R30	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R31	*	*	*	*	*	*	*	*	5.00	5.00	5.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R32	*	*	*	*	*	*	*	*	4.00	4.00	5.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R33	*	*	*	*	*	*	*	*	4.00	4.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R34	*	*	*	*	*	*	*	*	3.00	3.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R35	*	*	*	*	*	*	*	*	*	2.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R36	*	*	*	*	*	*	*	*	*	2.00	2.00	1.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R37	*	*	*	*	*	*	*	*	*	2.00	2.00	1.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R38	*	*	*	*	*	*	*	*	*	*	2.00	1.00	1.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R39	*	*	*	*	*	*	*	*	*	*	*	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

MAS- 8

MAS- 8

**** ACTUAL SCORES WITHOUT WEIGHTS SHOULD BE REQUESTED, IF DO NOT WANT.
COMMAND 'NOWT' USING CODE '03' TO OPTA.

FACTOR 4 ROD INCREASED SCORES

ACCESSIBILITY OF ROAD.

INITIAL INPUT WEIGHT = 1.00

INTERPOLATED WEIGHT = 0.10

COURSE : THESIS 1913
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISOR : ASS. PROF. DR. WICHA DIRALAT
STUDENT : SUMMICHAI SIENGNARK

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	75.00	75.00	75.00	100.00	*	*	*
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	75.00	75.00	100.00	100.00	100.00	*	*
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	75.00	75.00	100.00	100.00	100.00	100.00	*	*	*	*
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	75.00	75.00	50.00	50.00	50.00	50.00	75.00	75.00	100.00	100.00	100.00	100.00	100.00	100.00	*
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	75.00	75.00	50.00	50.00	50.00	50.00	50.00	75.00	75.00	100.00	100.00	100.00	100.00	100.00	100.00	*
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	75.00	75.00	100.00	100.00	100.00	100.00	100.00	100.00	*
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	75.00	75.00	75.00	50.00	50.00	50.00	50.00	50.00	75.00	75.00	100.00	100.00	100.00	100.00	100.00	100.00	*
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	75.00	75.00	75.00	75.00	50.00	50.00	50.00	50.00	75.00	75.00	100.00	100.00	100.00	100.00	100.00	100.00	*
R 9	*	*	*	*	*	*	*	*	*	*	*	75.00	50.00	*	*	*	75.00	25.00	25.00	25.00	25.00	25.00	50.00	50.00	50.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	*
R10	*	*	*	*	*	*	*	*	*	50.00	75.00	75.00	75.00	50.00	50.00	50.00	50.00	25.00	25.00	25.00	25.00	25.00	25.00	50.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	*
R11	*	*	*	*	*	*	*	*	50.00	50.00	50.00	75.00	75.00	75.00	50.00	50.00	25.00	25.00	25.00	0.0	0.0	0.0	25.00	25.00	25.00	75.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
R12	*	*	*	*	*	75.00	75.00	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	50.00	50.00	50.00	50.00	50.00	50.00	*
R13	*	*	*	*	*	50.00	75.00	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	25.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	50.00	50.00	50.00	50.00	50.00	50.00	*
R14	*	*	*	*	*	50.00	75.00	75.00	*	*	*	50.00	50.00	50.00	50.00	50.00	25.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	*	*	50.00	50.00	50.00	50.00	*	*
R15	*	*	*	*	*	50.00	75.00	75.00	*	*	50.00	50.00	50.00	50.00	50.00	50.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	50.00	*
R16	*	*	*	*	*	50.00	75.00	50.00	50.00	50.00	50.00	50.00	75.00	75.00	75.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*
R17	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	25.00	25.00	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R18	*	*	*	*	0.0	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	25.00	75.00	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*
R19	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	25.00	25.00	0.0	0.0	0.0	0.0	25.00	*	*	25.00	*	*	*	*	*	*	*	*	*
R20	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	25.00	25.00	0.0	0.0	0.0	0.0	25.00	25.00	25.00	*	*	*	*	*	*	*	*	*	*
R21	75.00	75.00	50.00	50.00	50.00	50.00	50.00	75.00	75.00	75.00	75.00	50.00	50.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*
R22	50.00	50.00	50.00	25.00	25.00	25.00	25.00	25.00	75.00	75.00	75.00	75.00	50.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*
R23	75.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*
R24	25.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*
R25	25.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.00	25.00	0.0	0.0	0.0	0.0	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R27	0.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R28	*	*	0.0	0.0	25.00	25.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.00	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R29	*	*	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	0.0	25.00	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*
R30	*	*	*	*	*	*	*	*	25.00	25.00	25.00	25.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*
R31	*	*	*	*	*	*	*	*	100.00	100.00	100.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R32	*	*	*	*	*	*	*	*	75.00	75.00	100.00	25.00	25.00	0.0	0.0	0.0	0.0	25.00	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R33	*	*	*	*	*	*	*	*	75.00	75.00	25.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R34	*	*	*	*	*	*	*	*	50.00	50.00	25.00	0.0	0.0	0.0	0.0	0.0	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R35	*	*	*	*	*	*	*	*	25.00	25.00	0.0	0.0	0.0	0.0	25.00	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R36	*	*	*	*	*	*	*	*	25.00	25.00	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R37	*	*	*	*	*	*	*	*	25.00	25.00	25.00	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R38	*	*	*	*	*	*	*	*	25.00	25.00	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R39	*	*	*	*	*	*	*	*	*	25.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MNS- 8

MNS- 8

**** NORMAL SCORE, PRINTOUT SHOULD BE REQUESTED, IF DO NOT WANT.
ERROR: INPUT DATA CODE '9' TO CONT.

DENSITY OF POPULATION.

INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

COURSE : THESIS 1973
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

TEACHER : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUMICHAI SINGNAPA

	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	3.00	3.00	4.00	4.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	R 8
R 9	*	*	*	*	*	*	*	*	*	*	3.00	3.00	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	R 9
R10	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	R10
R11	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	R11
R12	*	*	3.00	3.00	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	*	R12
R13	*	*	3.00	3.00	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	*	*	*	*	R13
R14	*	*	3.00	3.00	3.00	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	*	*	4.00	4.00	4.00	4.00	*	*	*	*	*	R14
R15	*	*	3.00	3.00	3.00	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	3.00	*	*	*	*	*	R15
R16	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	R21
R22	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R25	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R25
R24	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0	*	*	*	*	*	*	*	*	*	*	*	*	R24
R26	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	3.00	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	3.00	3.00	3.00	3.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	*	6.00	6.00	6.00	6.00	6.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MAS- 1

MAS- 9

**** TOTAL SCORES PRINTOUT SHOULD BE REQUESTED,IF YOU DO NOT WANT.
COMMAND INDIRECTLY USING CODE '3' TO OPTI.

FACTOR 9 POP (NORMALISED SCORES)

DENSITY OF POPULATION.

INITIAL INPUT WEIGHT = 1.00

MANIPULATED WEIGHT = 0.10

: THESIS 1313
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

ADVISER : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SIENGNAEK

	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	66.67	66.67	50.00	50.00	66.67	66.67	50.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	66.67	66.67	66.67	66.67	66.67	66.67	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	R 8
R 9	*	*	*	*	*	*	*	*	*	50.00	50.00	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	R 9
R10	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	R10
R11	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	56.67	56.67	66.67	50.00	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	R11
R12	*	*	*	50.00	50.00	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	*	R12
R13	*	*	*	50.00	50.00	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	56.67	56.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	*	*	*	*	R13
R14	*	*	*	50.00	50.00	50.00	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	66.67	66.67	*	*	*	66.67	66.67	66.67	66.67	*	*	*	*	R14
R15	*	*	*	50.00	50.00	50.00	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	*	*	*	50.00	*	*	*	*	R15
R16	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	P20
R21	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R21
R22	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R23
R25	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R24	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R24
R26	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R26
R27	50.00	*	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	*	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	50.00	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	50.00	100.00	100.00	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	50.00	50.00	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MNS- 8 MNS- 9

**** NORMAL SCORES PRINTOUT SHOULD BE REQUESTED, IF DO NOT WANT.
COMMAND 'NO:07' USING CODE '07' TO OPTN.

FACTOR 10 PLN (ACTUAL SCORES)

PLANNING FOR AGRICULTURE.

INITIAL INPUT WEIGHT = 1.00

(INTERPOLATED WEIGHT = 0.10

COURSE : THESIS (T13)
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

LECTURER : ASS. PROF. DR. WICHI JIWALAI
STUDENT : SUPACHAI SENGNAEK

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	3.00	3.00	3.00	2.00	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	2.00	2.00	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	3.00	3.00	3.00	4.00	4.00	2.00	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.00	3.00	3.00	2.00	4.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	3.00	3.00	3.00	4.00	4.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	*	0.0	0.0	0.0	0.0	2.00	3.00	3.00	3.00	3.00	2.00	2.00	3.00	2.00	2.00	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	2.00	2.00	0.0	0.0	0.0	3.00	3.00	3.00	2.00	3.00	4.00	2.00	4.00	2.00	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4.00	2.00	2.00	2.00	4.00	0.0	0.0	0.0	3.00	3.00	4.00	3.00	2.00	3.00	4.00	3.00	2.00	R 8
R 9	*	*	*	*	*	*	*	*	*	*	3.00	3.00	*	*	*	4.00	4.00	4.00	2.00	2.00	2.00	0.0	0.0	2.00	4.00	3.00	3.00	3.00	2.00	4.00	2.00	2.00	2.00	R 9
R10	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	2.00	2.00	2.00	3.00	4.00	4.00	4.00	4.00	3.00	4.00	3.00	4.00	4.00	3.00	0.0	4.00	2.00	4.00	4.00	2.00	2.00	R10
R11	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	4.00	4.00	2.00	2.00	2.00	2.00	3.00	4.00	4.00	3.00	3.00	4.00	2.00	4.00	4.00	4.00	2.00	R11
R12	*	*	3.00	3.00	*	*	*	*	3.00	3.00	3.00	0.0	0.0	0.0	2.00	4.00	4.00	4.00	0.0	2.00	2.00	2.00	2.00	4.00	4.00	3.00	0.0	4.00	2.00	3.00	3.00	4.00	*	R12
R13	*	*	0.0	3.00	*	*	*	*	3.00	3.00	4.00	3.00	3.00	0.0	0.0	0.0	4.00	4.00	4.00	3.00	2.00	2.00	0.0	4.00	3.00	0.0	3.00	4.00	4.00	*	*	*	*	R13
R14	*	*	3.00	3.00	3.00	*	*	3.00	3.00	3.00	3.00	4.00	4.00	0.0	0.0	0.0	0.0	4.00	4.00	4.00	4.00	4.00	*	*	*	*	1.00	3.00	1.00	1.00	*	*	*	R14
R15	*	*	3.00	3.00	3.00	*	*	3.00	3.00	3.00	3.00	3.00	4.00	0.0	4.00	0.0	0.0	4.00	4.00	*	*	*	*	*	*	*	*	*	3.00	*	*	*	*	R15
R16	*	*	3.00	3.00	3.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	2.00	2.00	4.00	0.0	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	4.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	0.0	3.00	3.00	3.00	3.00	0.0	3.00	3.00	3.00	3.00	3.00	2.00	2.00	0.0	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	3.00	2.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	3.00	0.0	4.00	4.00	4.00	4.00	4.00	*	1.00	*	*	*	*	*	*	*	*	*	*	R19
R20	*	*	2.00	4.00	2.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R20
R21	4.00	3.00	3.00	4.00	3.00	2.00	2.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	0.0	4.00	0.0	0.0	4.00	1.00	*	*	*	*	*	*	*	*	*	*	*	R21
R22	4.00	3.00	3.00	4.00	4.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	4.00	4.00	3.00	4.00	4.00	4.00	3.00	4.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	0.0	0.0	0.0	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	4.00	4.00	3.00	3.00	4.00	0.0	0.0	2.00	3.00	2.00	2.00	2.00	2.00	4.00	4.00	4.00	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	4.00	4.00	3.00	3.00	2.00	0.0	0.0	2.00	0.0	2.00	2.00	2.00	4.00	4.00	4.00	4.00	0.0	0.0	4.00	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	4.00	4.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	4.00	4.00	3.00	4.00	2.00	0.0	4.00	3.00	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	4.00	*	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.0	0.0	0.0	4.00	4.00	3.00	0.0	4.00	4.00	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	2.00	2.00	4.00	4.00	0.0	2.00	4.00	4.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	4.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	2.00	2.00	4.00	2.00	4.00	4.00	2.00	4.00	4.00	1.00	*	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	*	3.00	3.00	3.00	3.00	2.00	3.00	4.00	2.00	4.00	4.00	4.00	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	*	2.00	3.00	3.00	3.00	2.00	3.00	4.00	4.00	2.00	2.00	2.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	*	2.00	4.00	2.00	2.00	3.00	2.00	4.00	4.00	2.00	4.00	2.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	*	4.00	4.00	3.00	2.00	3.00	2.00	4.00	4.00	4.00	2.00	2.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	2.00	2.00	2.00	2.00	3.00	4.00	0.0	4.00	2.00	2.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	4.00	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	4.00	0.0	2.00	4.00	0.0	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	4.00	4.00	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	4.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MAS-10

MAS-10

**** ACTUAL SCORES PRINTOUT SHOULD BE REQUESTED,IF DO NOT WANT.
COMMAND 'NO'BY USING CODE '0' TO OPTA.

FICTICA 10 PLN (NORMALISED SCORES)

PLANNING FOR AGRICULTURE.

INITIAL INPUT WEIGHT = 1.00

ANTIPOLATED WEIGHT = 0.10

CASE STUDY : BAN SONG, UDONTHANEE, THAILAND

COURSE : THESIS 1113
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

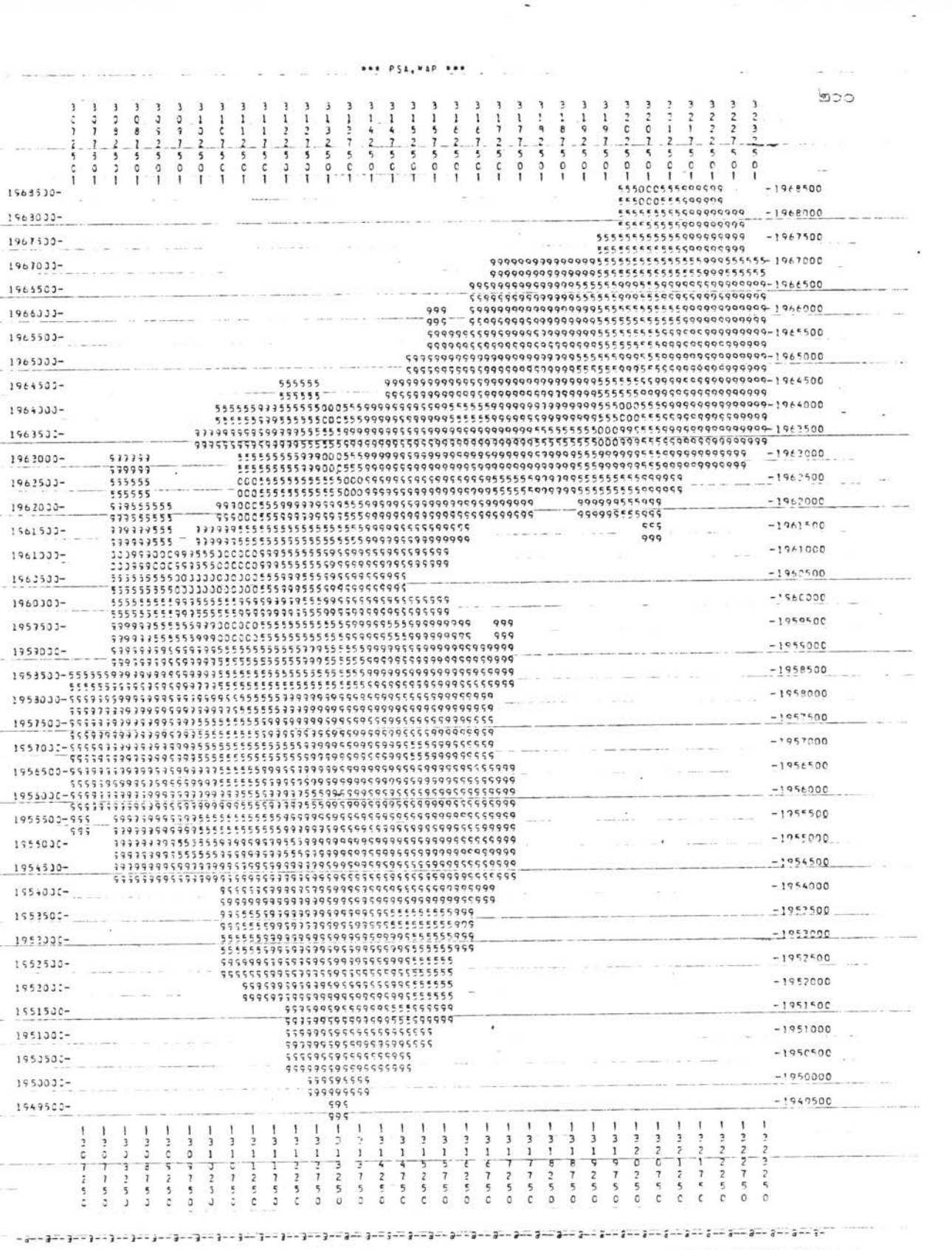
ADVISER : ASS. PROF. M. WICHA JIWALAI
STUDENT : SUTHICHAI SENGNAEK

	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	
R 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	75.00	75.00	75.00	50.00	*	*	*	*	*	*	R 1
R 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	75.00	75.00	75.00	75.00	50.00	50.00	*	*	*	*	*	R 2
R 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	75.00	75.00	75.00	100.00	100.00	50.00	*	*	*	*	R 3
R 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	50.00	75.00	75.00	50.00	100.00	75.00	75.00	75.00	50.00	50.00	50.00	50.00	50.00	R 4
R 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	75.00	0.0	100.00	100.00	100.00	75.00	75.00	75.00	50.00	50.00	50.00	50.00	50.00	R 5
R 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	*	*	0.0	0.0	0.0	50.00	75.00	75.00	75.00	50.00	50.00	50.00	50.00	50.00	50.00	R 6
R 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	50.00	50.00	0.0	0.0	0.0	75.00	75.00	75.00	50.00	75.00	100.00	50.00	100.00	50.00	R 7
R 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	50.00	50.00	50.00	100.00	0.0	0.0	0.0	75.00	75.00	100.00	75.00	50.00	75.00	100.00	75.00	50.00	R 8
R 9	*	*	*	*	*	*	*	*	*	*	75.00	75.00	*	*	*	*	100.00	100.00	100.00	50.00	50.00	50.00	0.0	75.00	50.00	100.00	75.00	75.00	75.00	50.00	100.00	50.00	50.00	R 9
R10	*	*	*	*	*	*	*	*	75.00	75.00	75.00	75.00	75.00	50.00	50.00	50.00	75.00	100.00	100.00	100.00	100.00	100.00	75.00	100.00	75.00	100.00	100.00	75.00	0.0	100.00	50.00	100.00	100.00	R10
R11	*	*	*	*	*	*	*	*	75.00	75.00	75.00	75.00	75.00	0.0	75.00	50.00	50.00	50.00	100.00	100.00	50.00	50.00	50.00	50.00	75.00	100.00	100.00	75.00	75.00	100.00	50.00	100.00	100.00	R11
R12	*	*	*	*	75.00	75.00	*	*	*	*	75.00	75.00	75.00	0.0	0.0	0.0	50.00	100.00	100.00	100.00	0.0	50.00	50.00	50.00	50.00	100.00	100.00	75.00	0.0	100.00	50.00	75.00	75.00	R12
R13	*	*	*	*	0.0	75.00	*	*	*	*	75.00	75.00	100.00	75.00	75.00	0.0	0.0	0.0	100.00	100.00	100.00	75.00	50.00	50.00	0.0	100.00	75.00	0.0	75.00	100.00	100.00	*	*	R13
R14	*	*	*	*	75.00	75.00	75.00	*	*	*	75.00	75.00	75.00	100.00	100.00	0.0	0.0	0.0	0.0	100.00	100.00	100.00	100.00	100.00	*	*	25.00	75.00	25.00	25.00	*	*	*	R14
R15	*	*	*	*	75.00	75.00	75.00	*	*	*	75.00	75.00	75.00	75.00	100.00	0.0	100.00	0.0	0.0	100.00	100.00	*	*	*	*	*	*	*	75.00	*	*	*	*	R15
R16	*	*	*	*	75.00	75.00	75.00	100.00	75.00	75.00	75.00	75.00	75.00	100.00	50.00	50.00	100.00	0.0	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R16
R17	*	*	*	*	100.00	100.00	100.00	100.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	50.00	75.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R17
R18	*	*	*	*	0.0	75.00	75.00	75.00	75.00	0.0	75.00	75.00	75.00	75.00	75.00	50.00	50.00	0.0	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R18
R19	*	*	*	*	75.00	50.00	100.00	75.00	75.00	75.00	75.00	75.00	75.00	100.00	100.00	100.00	75.00	0.0	100.00	100.00	100.00	100.00	*	25.00	*	*	*	*	*	*	*	*	*	R19
R20	*	*	*	*	50.00	100.00	50.00	50.00	100.00	100.00	75.00	75.00	75.00	75.00	75.00	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	25.00	*	*	*	*	*	*	*	*	*	R20
R21	100.00	75.00	75.00	100.00	75.00	50.00	50.00	100.00	75.00	75.00	75.00	75.00	75.00	100.00	100.00	100.00	0.0	100.00	0.0	0.0	100.00	25.00	*	*	*	*	*	*	*	*	*	*	*	R21
R22	100.00	75.00	75.00	100.00	100.00	75.00	50.00	75.00	75.00	75.00	75.00	75.00	100.00	100.00	100.00	100.00	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R22
R23	100.00	100.00	75.00	100.00	100.00	100.00	50.00	100.00	75.00	75.00	75.00	75.00	75.00	100.00	100.00	100.00	0.0	0.0	0.0	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R23
R24	100.00	100.00	75.00	75.00	100.00	0.0	0.0	50.00	75.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	R24
R25	100.00	100.00	75.00	75.00	50.00	0.0	0.0	50.00	0.0	50.00	50.00	50.00	100.00	100.00	100.00	100.00	0.0	0.0	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R25
R26	100.00	100.00	75.00	50.00	75.00	75.00	75.00	75.00	75.00	50.00	75.00	100.00	100.00	75.00	100.00	50.00	0.0	100.00	75.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R26
R27	100.00	*	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	0.0	0.0	0.0	100.00	100.00	75.00	0.0	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	R27
R28	*	*	*	100.00	75.00	75.00	75.00	75.00	75.00	75.00	100.00	100.00	100.00	50.00	50.00	100.00	100.00	0.0	50.00	100.00	100.00	25.00	*	*	*	*	*	*	*	*	*	*	*	R28
R29	*	*	*	100.00	75.00	75.00	75.00	75.00	100.00	100.00	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	25.00	*	*	*	*	*	*	*	*	*	*	*	R29
R30	*	*	*	*	*	*	*	75.00	75.00	75.00	75.00	50.00	75.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	R30
R31	*	*	*	*	*	*	*	50.00	75.00	75.00	75.00	50.00	75.00	100.00	100.00	50.00	50.00	50.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R31
R32	*	*	*	*	*	*	*	50.00	100.00	50.00	50.00	75.00	50.00	100.00	100.00	50.00	100.00	50.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R32
R33	*	*	*	*	*	*	*	*	100.00	100.00	50.00	75.00	50.00	75.00	50.00	100.00	100.00	100.00	50.00	50.00	*	*	*	*	*	*	*	*	*	*	*	*	*	R33
R34	*	*	*	*	*	*	*	*	*	50.00	50.00	50.00	75.00	100.00	0.0	100.00	50.00	50.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R34
R35	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R35
R36	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	100.00	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R36
R37	*	*	*	*	*	*	*	*	*	*	*	*	100.00	0.0	50.00	100.00	0.0	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R37
R38	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	100.00	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R38
R39	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	R39
	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	

MNS-10 MNS-10

**** NORMAL SCORES PRINTOUT SHOULD BE REQUESTED, IF DO NOT WANT.
COMMAND ADJUST USING CODE '03' TO OPTN.

ก. ๒ แผนที่ PSA.MAP และ GRAY.MAP



CATEGORISED POTENTIAL OF TOTAL 3 CLASSES :
0 = THE LOWEST POTENTIAL,9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	3.00	0.0	0.0	0.0	0.0
CATEGORY :	5	6	7	8	9
PERCENT :	24.62	0.0	0.0	0.0	72.38

PERCENT OF THIS 3 POTENTIAL AREAS * USING FOR
FROM 0 - 9 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

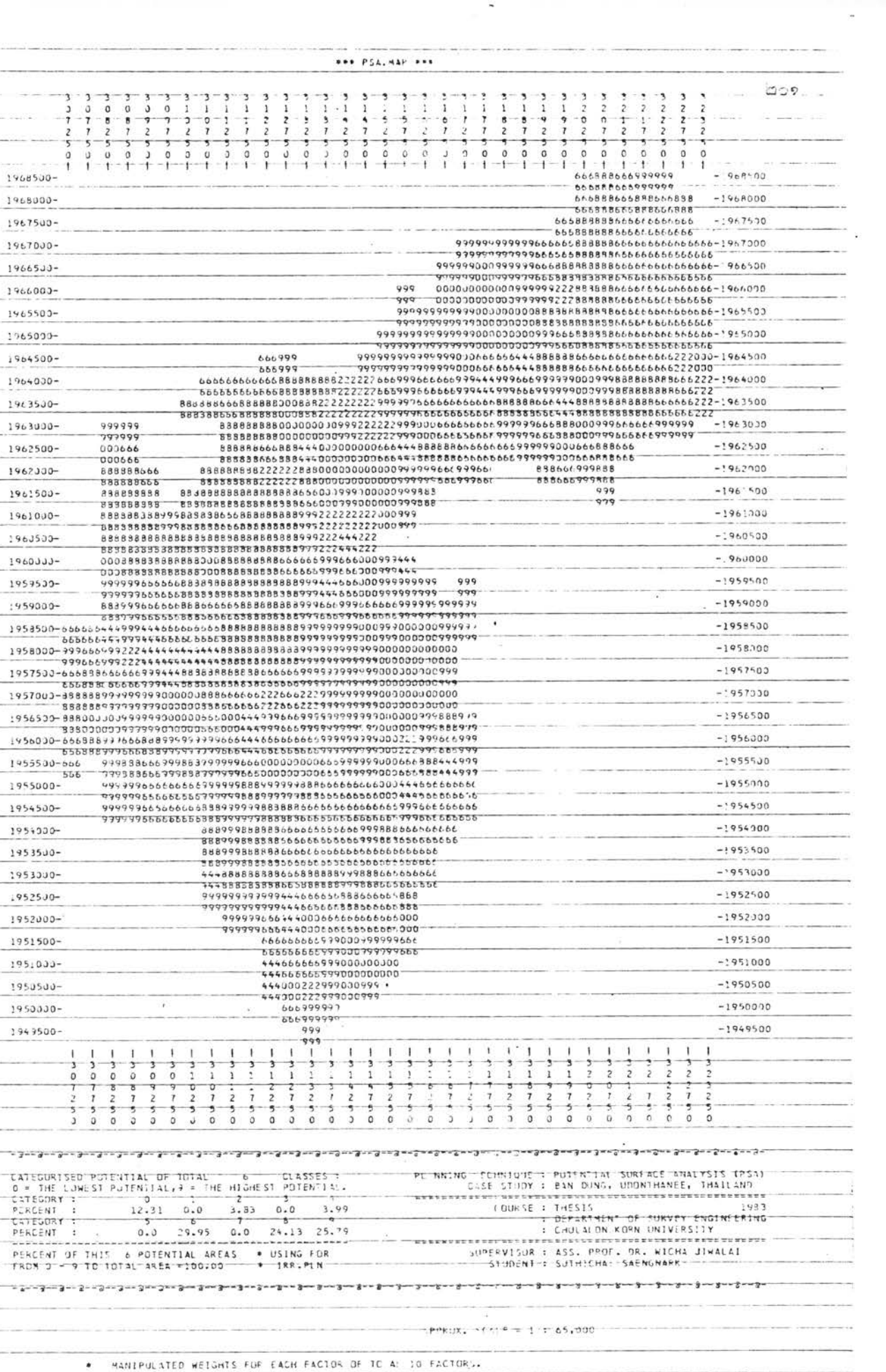
COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

SUPERVISOR : ASS. PROF. DR. WICHA JIWALST
STUDENT : SUTHICHAI SARANGKARN

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 LDU= 0.0	2 SOL= 0.0	3 FLD= 0.0	4 SFR= 0.0	5 SFP= 0.0
6 WTR= 0.0	7 RCD= 0.0	8 POP= 0.0	9 PLN= 0.0	10 SLP= 1.00
11 ---******	12 ---******	13 ---******	14 ---******	15 ---******
16 ---******	17 ---******	18 ---******	19 ---******	20 ---******



CATEGORISED POTENTIAL OF TOTAL 6 CLASSES :
0 = THE LOWEST POTENTIAL, 9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4				
PERCENT :	12.31	0.0	3.83	0.0	3.99				
CATEGORY :	5	6	7	8	9				
PERCENT :	0.0	29.95	0.0	24.13	25.79				

PERCENT OF THIS 6 POTENTIAL AREAS * USING FOR
FROM 0 - 9 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

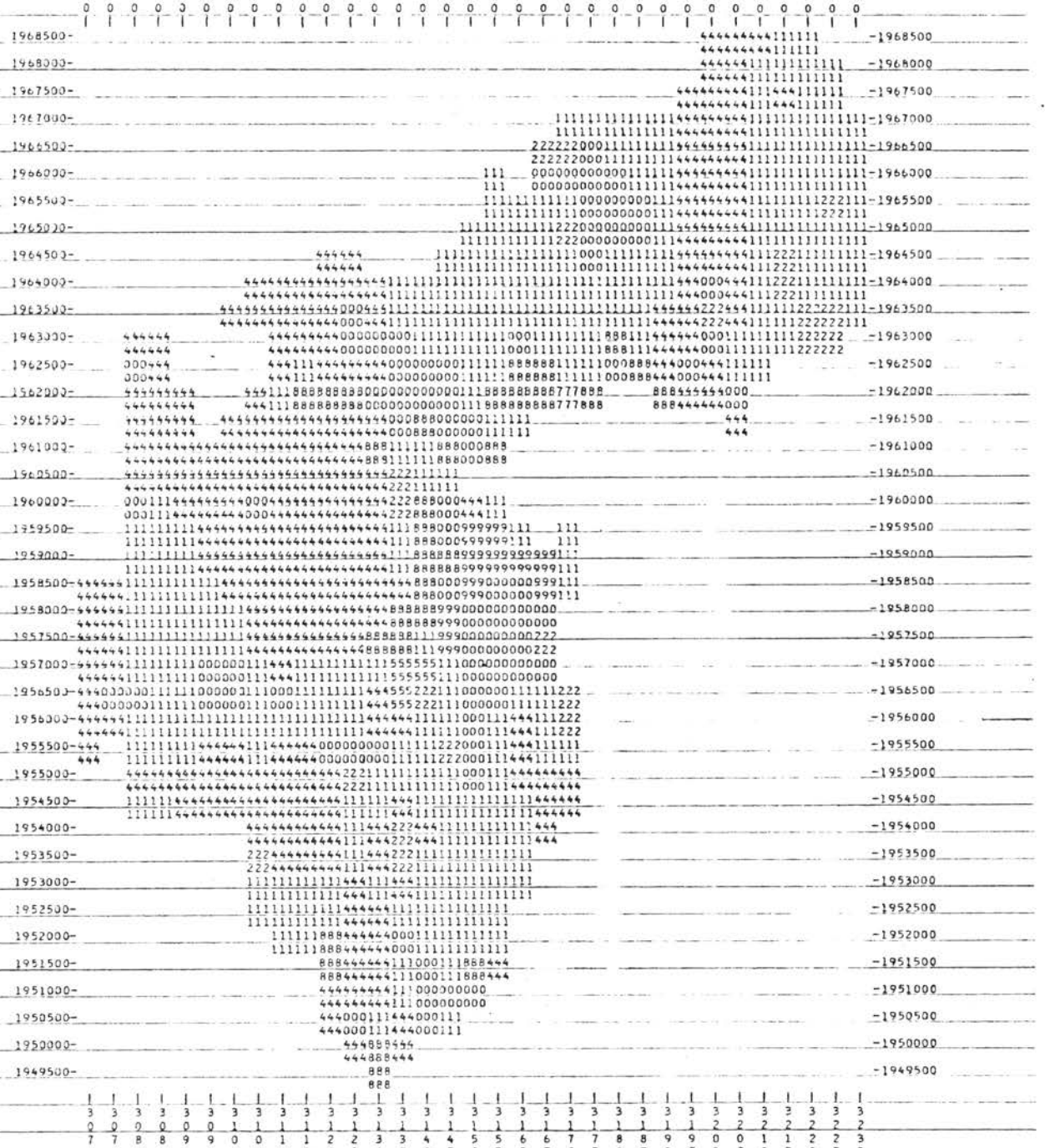
SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHA SAENGNARK

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TO AL 10 FACTORS.

1 SLP= 0.0	2 SOL= 0.0	3 FLD= 0.0	4 SFR= 0.0	5 SFP= 0.0
6 WTR= 0.0	7 ROD= 0.0	8 PUP= 0.0	9 PLN= 0.0	10 LNU= 1.00
11 ---=*****	12 ---=*****	13 ---=*****	14 ---=*****	15 ---=*****
16 ---=*****	17 ---=*****	18 ---=*****	19 ---=*****	20 ---=*****

*** PSA.MAP ***



CATEGORISED POTENTIAL OF TOTAL 8 CLASSES :
0 = THE LOWEST POTENTIAL, 9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	12.21	41.26	3.66	0.0	35.44
CATEGORY :	5	6	7	8	9
PERCENT :	0.50	0.0	0.17	4.99	1.66

PERCENT OF THIS 8 POTENTIAL AREAS * USING FOR
FROM 0 - 9 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

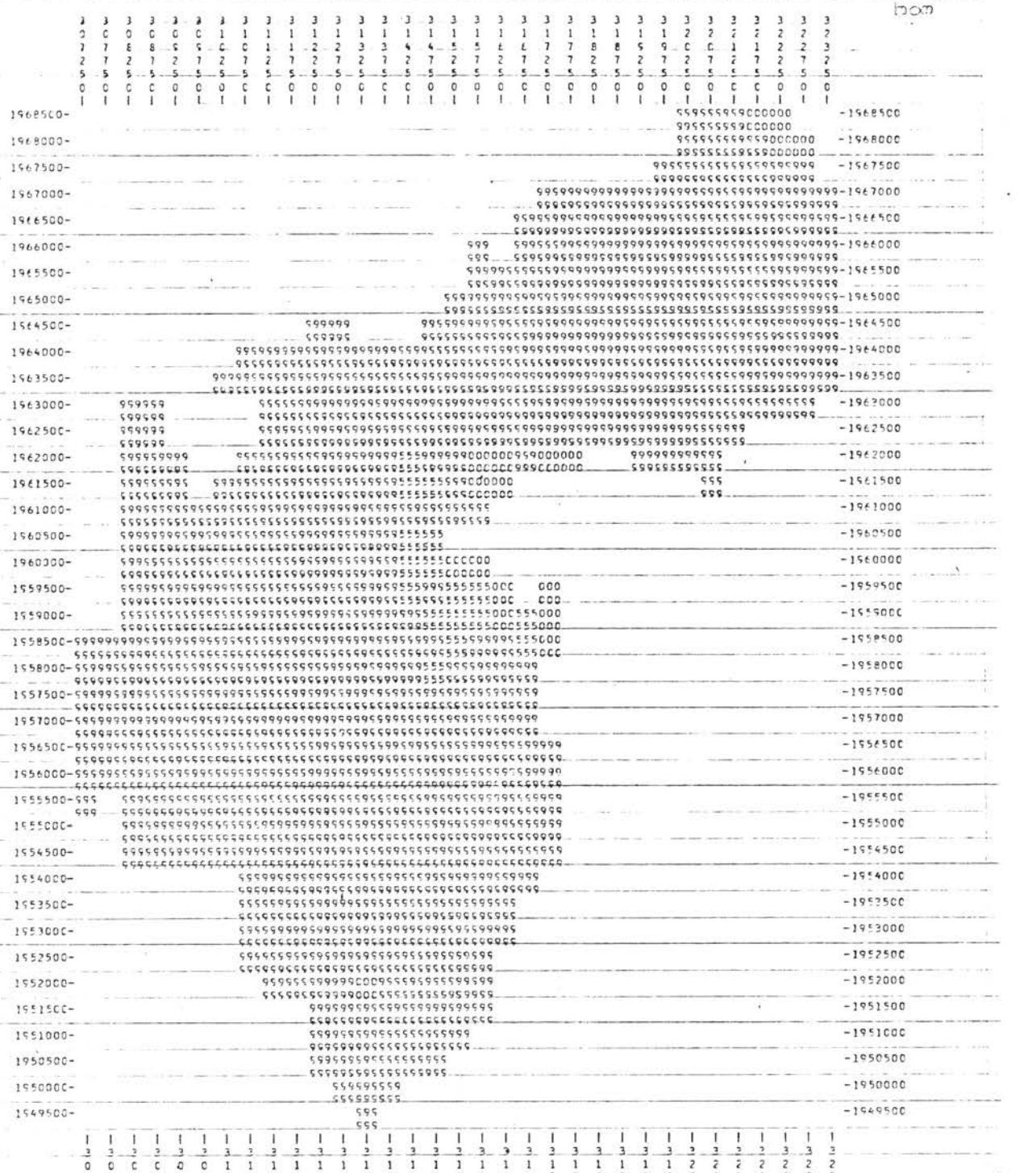
SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGNARK

APPROX. SCALE = 1 : 65.000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0 2 LDU= 0.0 3 FLD= 0.0 4 SFR= 0.0 5 SFP= 0.0
6 WTR= 0.0 7 ROD= 0.0 8 POP= 0.0 9 PLN= 0.0 10 SOL= 1.00
11 ---=***** 12 ---=***** 13 ---=***** 14 ---=***** 15 ---=*****
16 ---=***** 17 ---=***** 18 ---=***** 19 ---=***** 20 ---=*****

bom



CATEGORISED POTENTIAL OF TOTAL 3 CLASSES :
C = THE LOWEST POTENTIAL,9 = THE HIGHEST POTENTIAL.

CATEGORY :	C	1	2	3	4
PERCENT :	3.00	0.0	0.0	0.0	0.0
CATEGORY :	5	6	7	8	9
PERCENT :	2.83	0.0	0.0	0.0	94.18

PERCENT OF THIS 3 POTENTIAL AREAS * USING FOR
FROM 0 - 9, TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

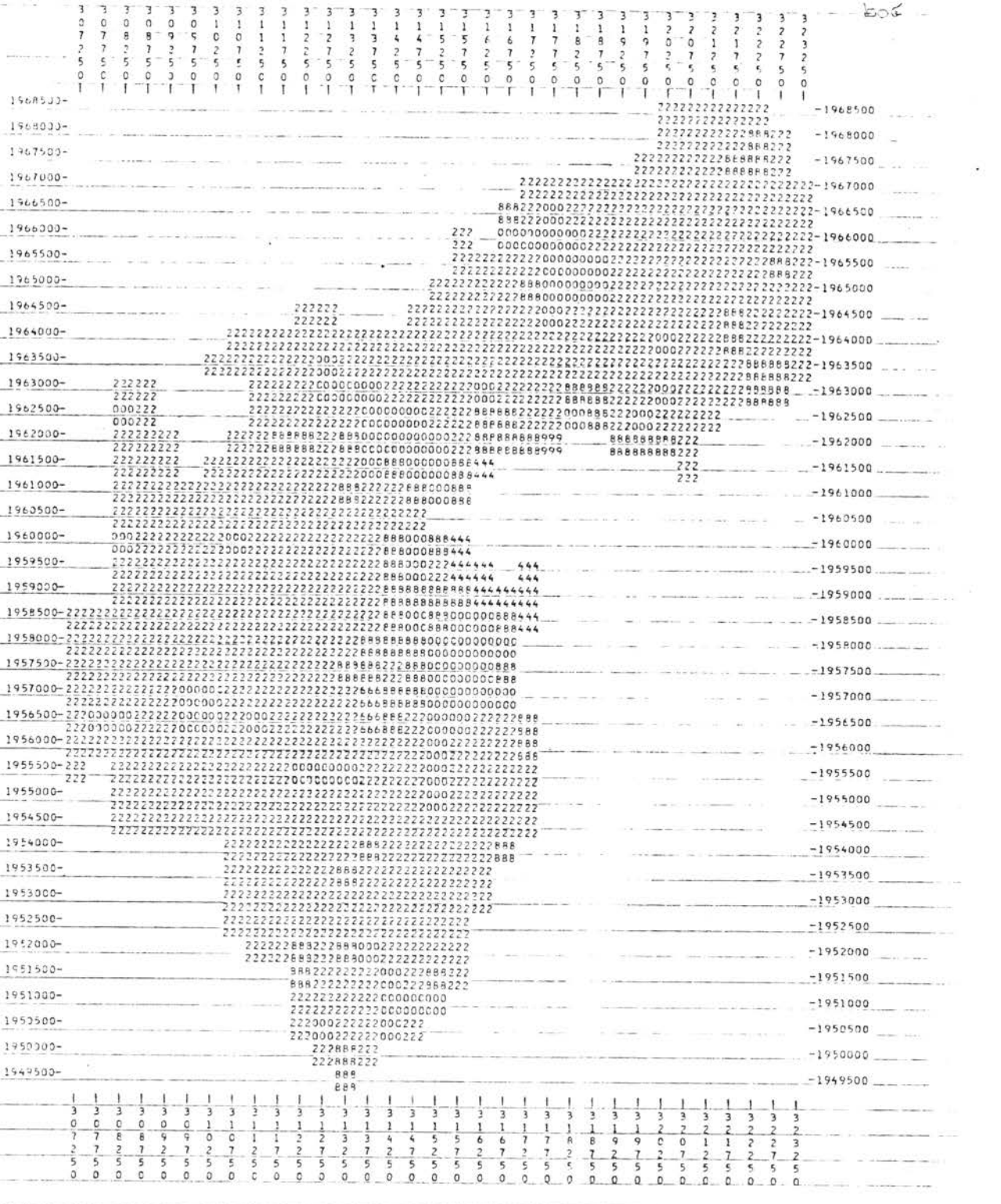
SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGKARK

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLF= 0.0	2 LCU= 0.0	3 SOL= 0.0	4 SFR= 0.0	5 SFP= 0.0
6 WTR= 0.0	7 ROD= 0.0	8 PCP= 0.0	9 PLN= 0.0	10 FLD= 1.00
11 ----*****	12 ----*****	13 ----*****	14 ----*****	15 ----*****
16 ----*****	17 ----*****	18 ----*****	19 ----*****	20 ----*****

*** PSA.MAP ***



CATEGORISED POTENTIAL OF TOTAL 6 CLASSES :
0 = THE LOWEST POTENTIAL,9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	12.15	0.0	75.54	0.0	1.50
CATEGORY :	5	6	7	8	9
PERCENT :	0.0	0.33	0.0	10.32	0.17

PERCENT OF THIS 6 POTENTIAL AREAS * USING FOR
FROM 0 - 9 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

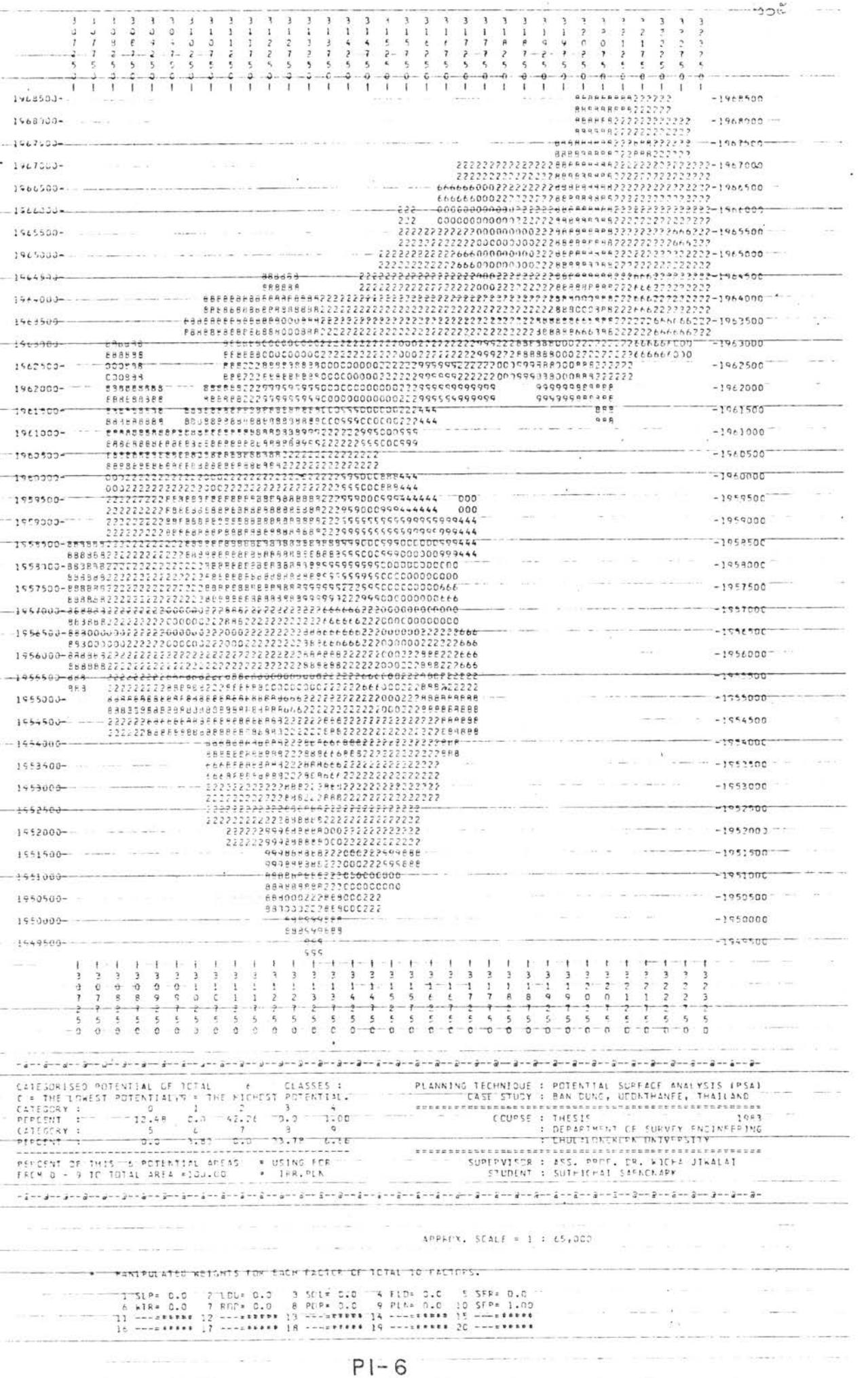
SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGNARK

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0 2 LDU= 0.0 3 SOL= 0.0 4 FLD= 0.0 5 SEP= 0.0
6 WTR= 0.0 7 ROD= 0.0 8 POP= 0.0 9 PLN= 0.0 10 SFR= 1.00
11 ---=***** 12 ---=***** 13 ---=***** 14 ---=***** 15 ---=*****
16 ---=***** 17 ---=***** 18 ---=***** 19 ---=***** 20 ---=*****

*** PSA.MAP ***



CATEGORISED POTENTIAL OF TOTAL 6 CLASSES :
0 = THE LOWEST POTENTIALITY = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	12.48	0.0	42.26	0.0	1.00
CATEGORY :	5	6	7	8	9
PERCENT :	0.0	3.83	0.0	33.79	6.16

PERCENT OF THIS 6 POTENTIAL AREAS * USING FOR
FROM 0 - 9 TO TOTAL AREA *100.00 * THR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

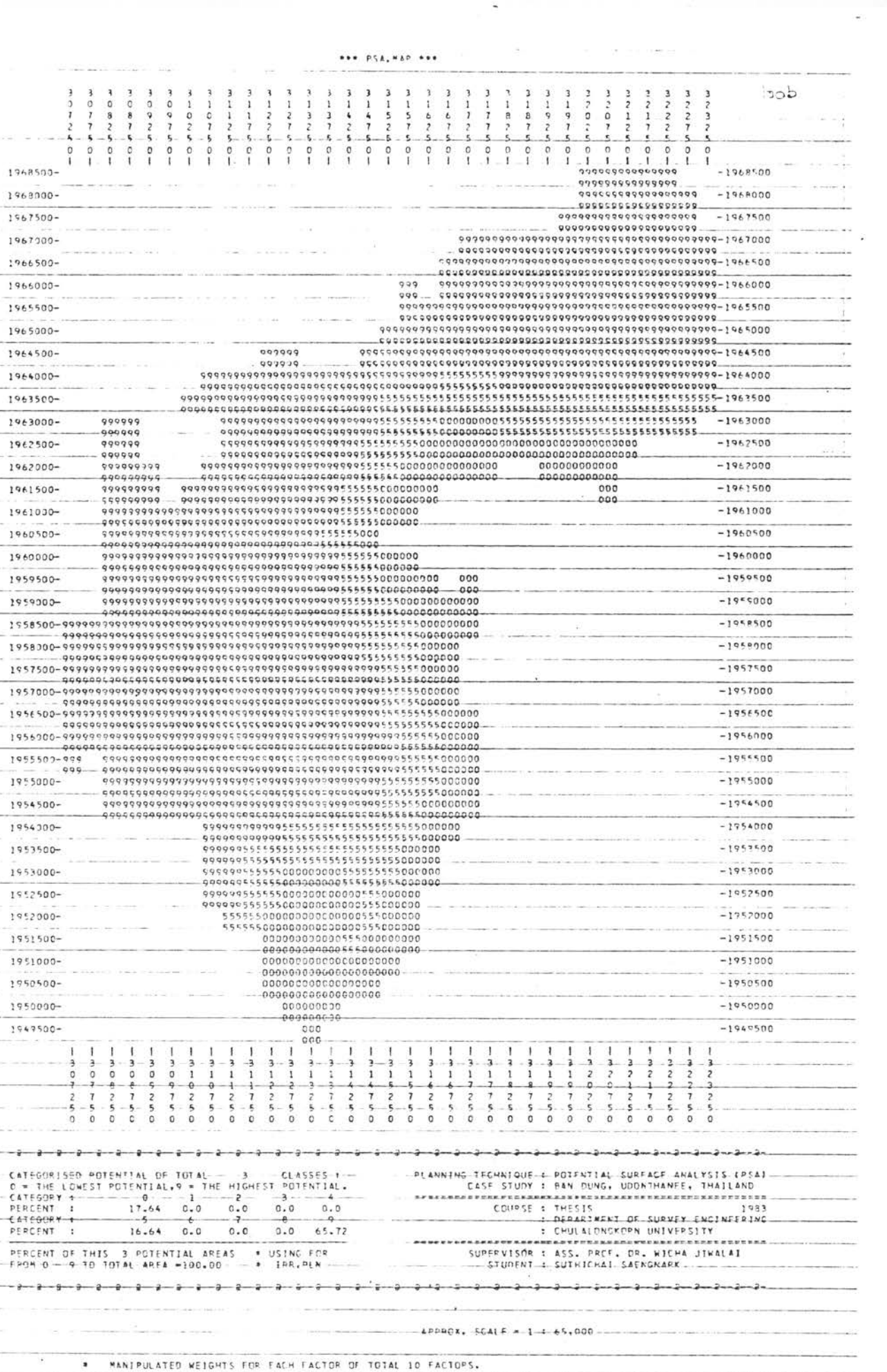
SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SARAKARN

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0	2 LDU= 0.0	3 SOL= 0.0	4 FLD= 0.0	5 SFR= 0.0
6 WTR= 0.0	7 RDP= 0.0	8 POP= 0.0	9 PLN= 0.0	10 SFP= 1.00
11 ---=*****	12 ---=*****	13 ---=*****	14 ---=*****	15 ---=*****
16 ---=*****	17 ---=*****	18 ---=*****	19 ---=*****	20 ---=*****

*** PSA.MAP ***



CATEGORISED POTENTIAL OF TOTAL — 3 CLASSES 1 —
0 = THE LOWEST POTENTIAL, 9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	17.64	0.0	0.0	0.0	0.0
CATEGORY :	5	6	7	8	9
PERCENT :	16.64	0.0	0.0	0.0	65.72

PERCENT OF THIS 3 POTENTIAL AREAS * USING FOR
FROM 0 — 9 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

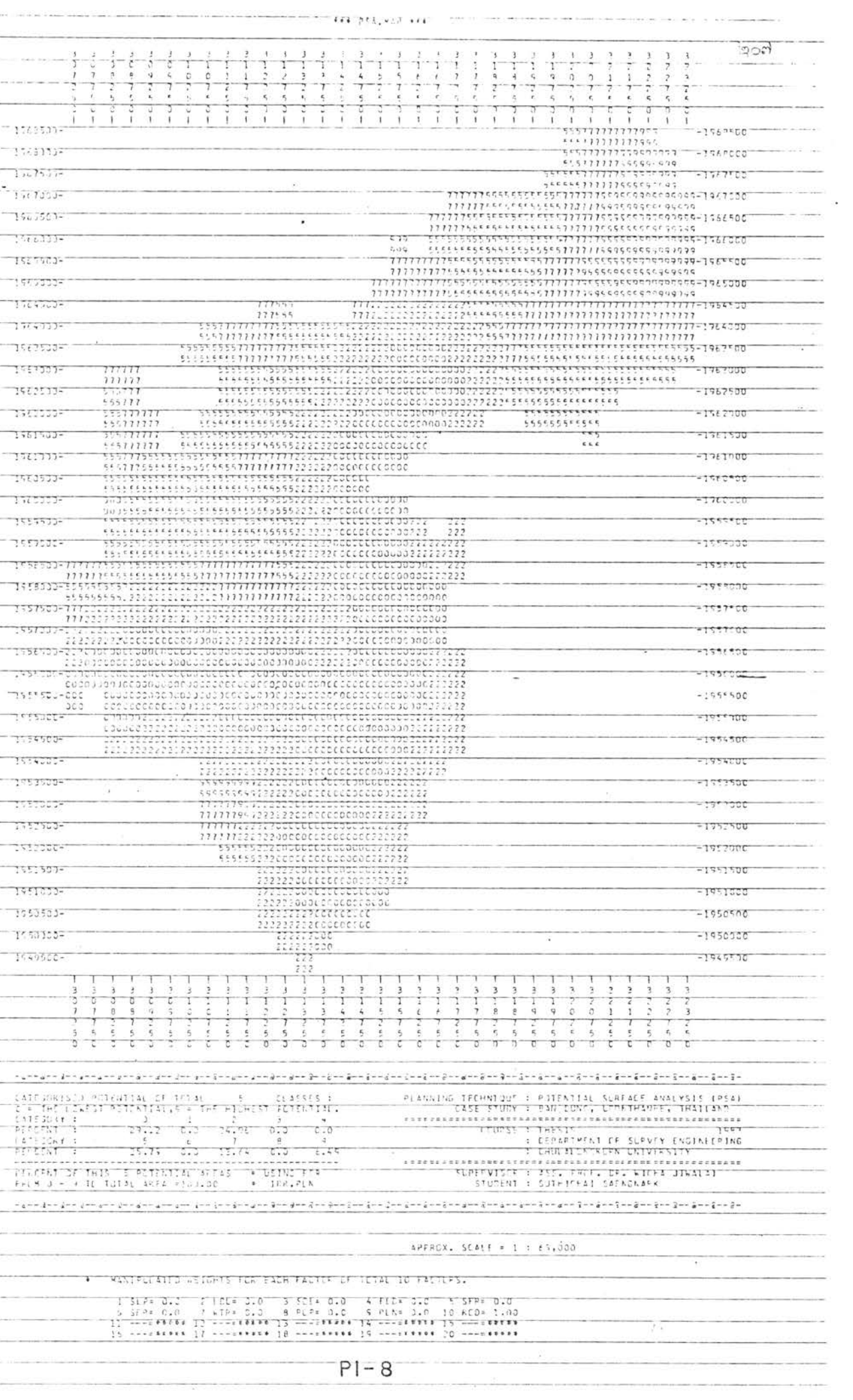
COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

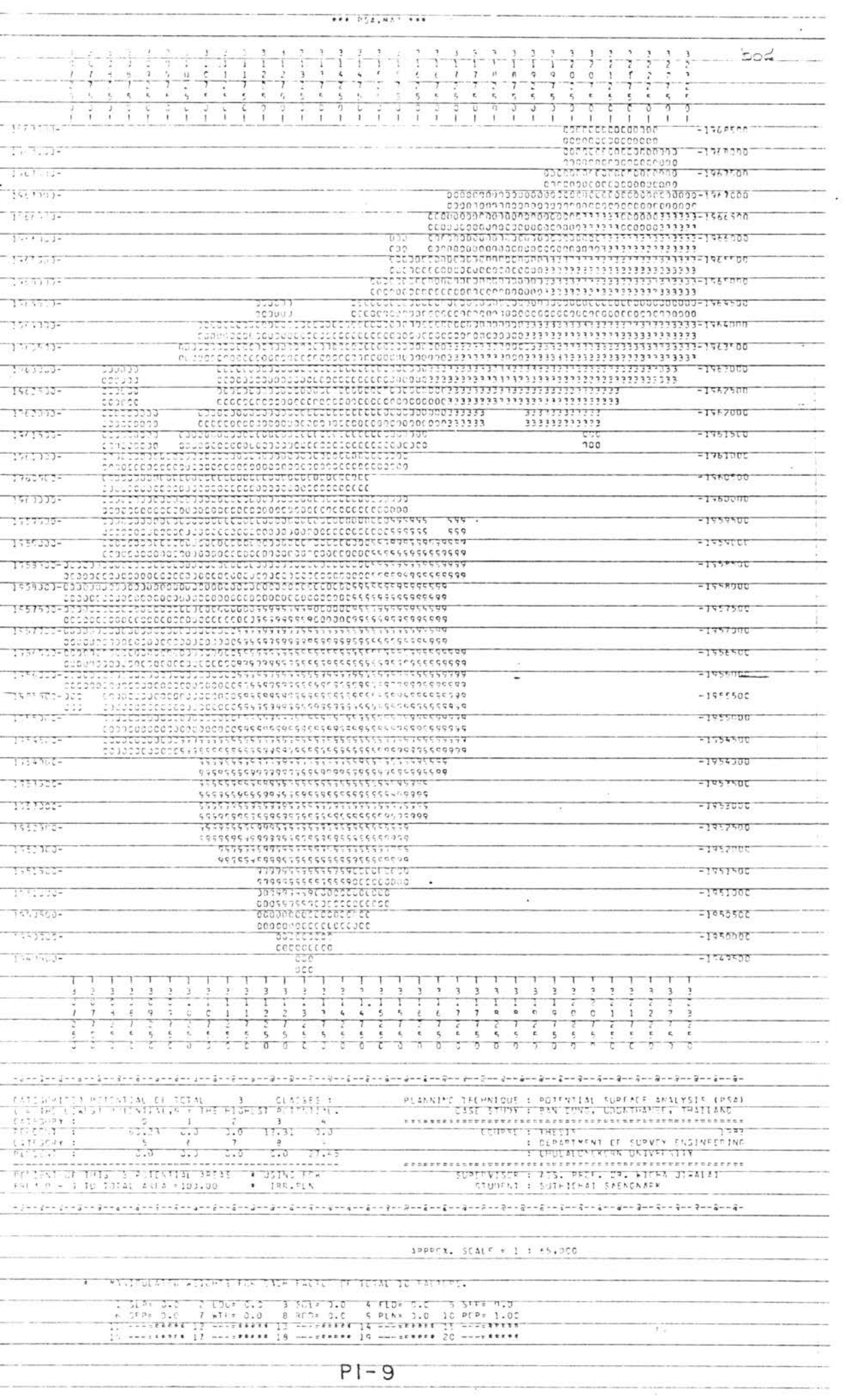
SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGKARK

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0	2 LDU= 0.0	3 SOL= 0.0	4 FLD= 0.0	5 SFR= 0.0
6 SFP= 0.0	7 RGD= 0.0	8 PGP= 0.0	9 PLN= 0.0	10 WTR= 1.00
11 ---=*****	12 ---=*****	13 ---=*****	14 ---=*****	15 ---=*****
16 ---=*****	17 ---=*****	18 ---=*****	19 ---=*****	20 ---=*****


CATEGORISED POTENTIAL OF TOTAL 5 CLASSES :
1 = THE LOWEST POTENTIAL, 5 = THE HIGHEST POTENTIAL.
PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BANGKONG, LAMPHUN, THAILAND
THESIS : 1987
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY
SUPERVISOR : ASS. PROF. DR. WITTA JIWALI
STUDENT : SUTHICHAI SARANGARK
APPROX. SCALE = 1 : 65,000
* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.
1 SLP= 0.0 2 TEC= 0.0 3 SCE= 0.0 4 FED= 0.0 5 SFR= 0.0
6 SFP= 0.0 7 WTP= 0.0 8 RLP= 0.0 9 PLN= 0.0 10 ACD= 1.00

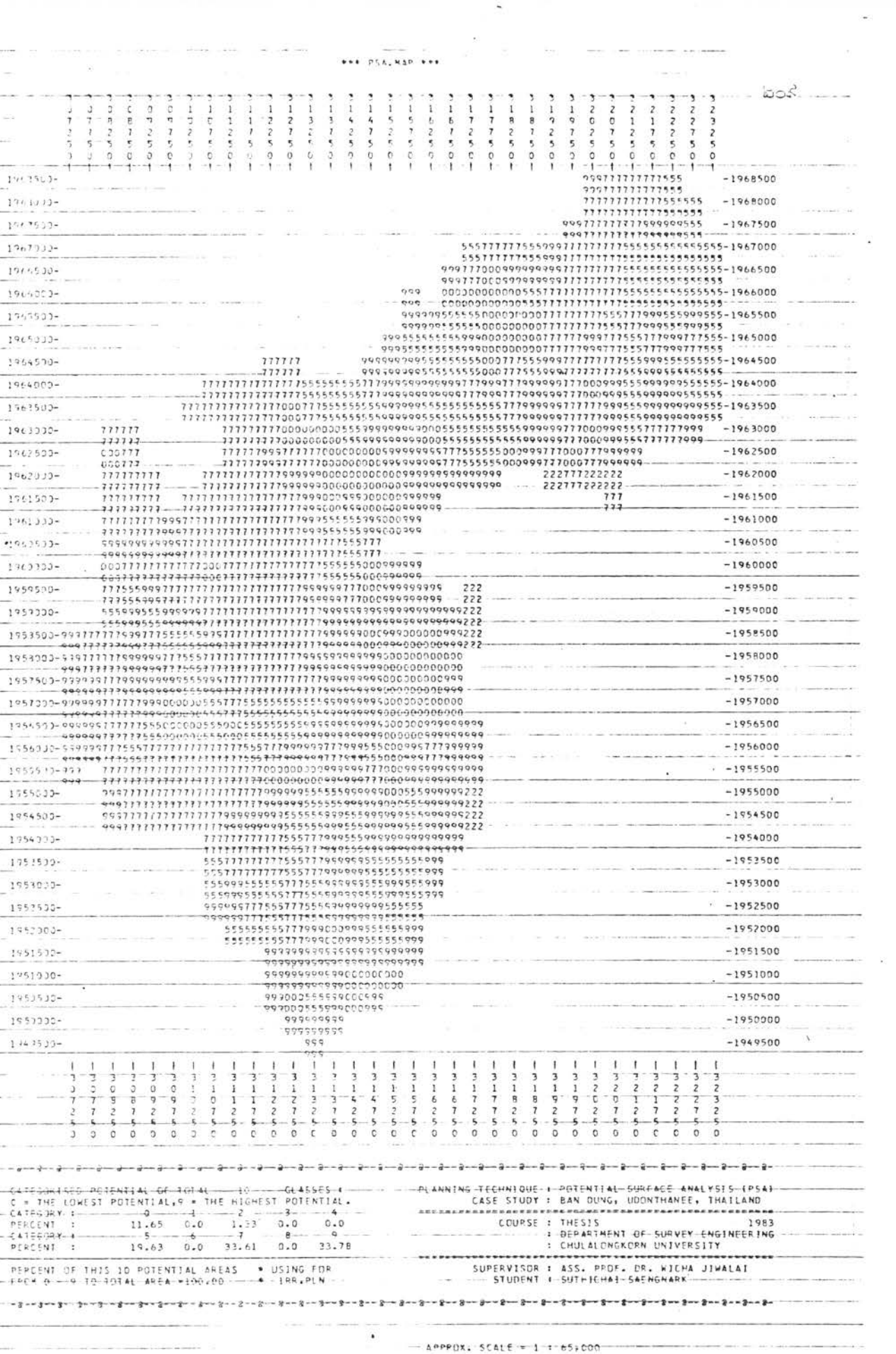


CATEGORIES POTENTIAL OF TOTAL 3 CLASSES : PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
(0 = THE LOWEST POTENTIAL, 4 = THE HIGHEST POTENTIAL. CASE STUDY : BAN LUNG, LOCHAMAHET, THAILAND
CATEGORY : 0 1 2 3 4 ==========
PERCENT : 62.23 0.0 3.0 13.31 0.0 COURSE : THESIS 1987
CATEGORY : 5 6 7 8 : DEPARTMENT OF SURVEY ENGINEERING
PERCENT : 0.0 0.0 0.0 0.0 27.45 : CHULALONGKORN UNIVERSITY
==========
PERCENT OF THIS 3 POTENTIAL AREAS * USING FOR SUPERVISOR : ASS. PROF. DR. NITHA JIAMAI
FROM 0 - 1 TO TOTAL AREA =103.00 * IRR.PLN STUDENT : SUTHICHAI SAENGNAPA

APPROX. SCALE = 1 : 45,000

* MAXIMUM AREA OF 3 FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0 2 LDU= 0.0 3 SOI= 0.0 4 FLD= 0.0 5 STF= 0.0
6 DEP= 0.0 7 WTH= 0.0 8 ROD= 0.0 9 PLN= 0.0 10 PCP= 1.00
11 ---****** 12 ---****** 13 ---****** 14 ---****** 15 ---******
16 ---****** 17 ---****** 18 ---****** 19 ---****** 20 ---******



CATEGORIZED POTENTIAL OF TOTAL 10 CLASSES :
0 = THE LOWEST POTENTIAL, 9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	11.65	0.0	1.33	0.0	0.0
CATEGORY :	5	6	7	8	9
PERCENT :	19.63	0.0	33.61	0.0	33.78

PERCENT OF THIS 10 POTENTIAL AREAS * USING FOR
FROM 0 - 9 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

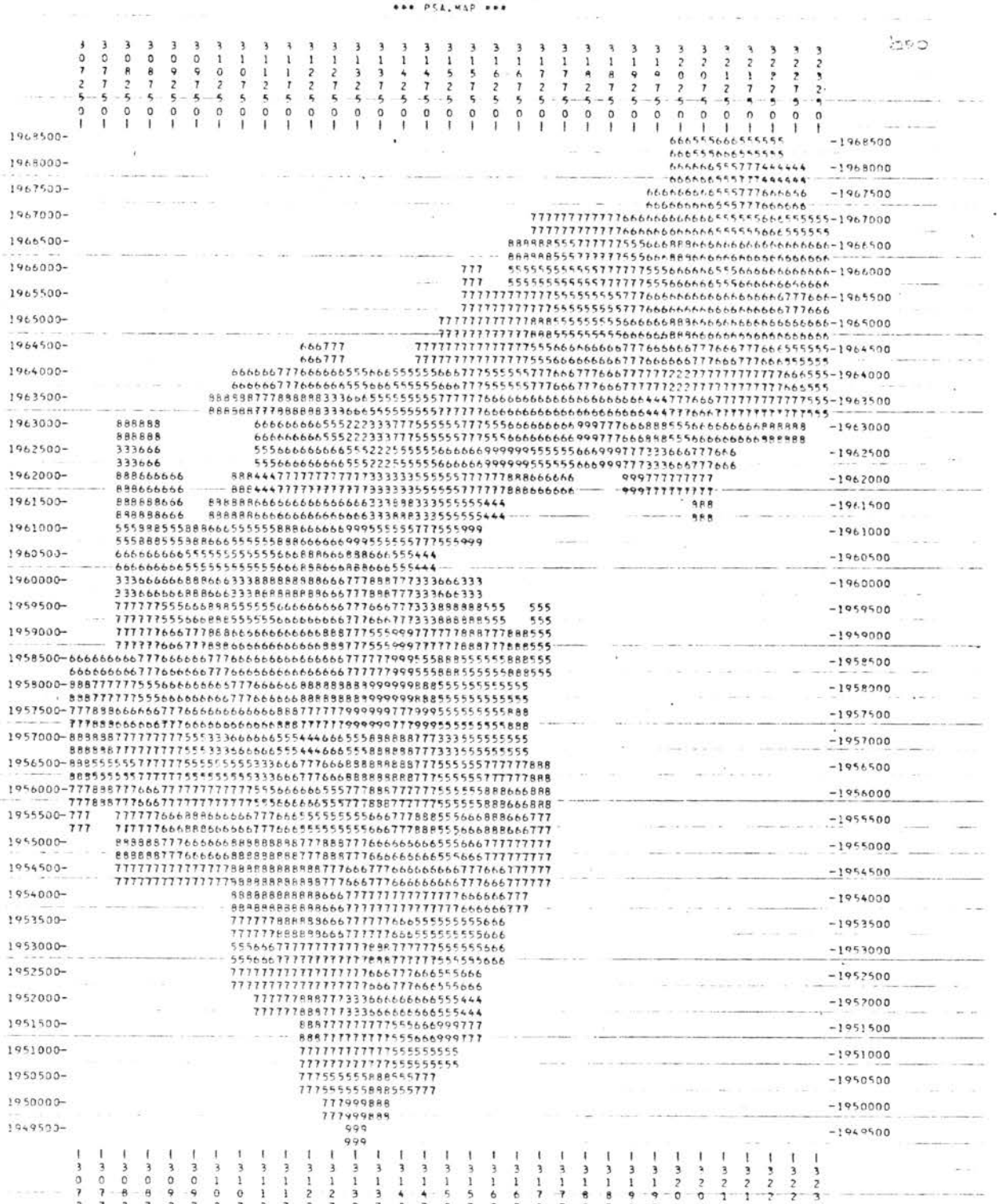
COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGNARK

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0	2 LDU= 0.0	3 SOL= 0.0	4 FLD= 0.0	5 SFR= 0.0
6 SFP= 0.0	7 WTR= 0.0	8 ROD= 0.0	9 POP= 0.0	10 PLN= 1.00
11 ---******	12 ---******	13 ---******	14 ---******	15 ---******
16 ---******	17 ---******	18 ---******	19 ---******	20 ---******



CATEGORISED POTENTIAL OF TOTAL 8 CLASSES :
2 = THE LOWEST POTENTIAL,9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	0.0	0.0	0.50	2.83	1.33
CATEGORY :	5	6	7	8	9
PERCENT :	19.80	30.62	27.62	14.48	2.83

PERCENT OF THIS 8 POTENTIAL AREAS * USING FOR
FROM 2 - 9 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

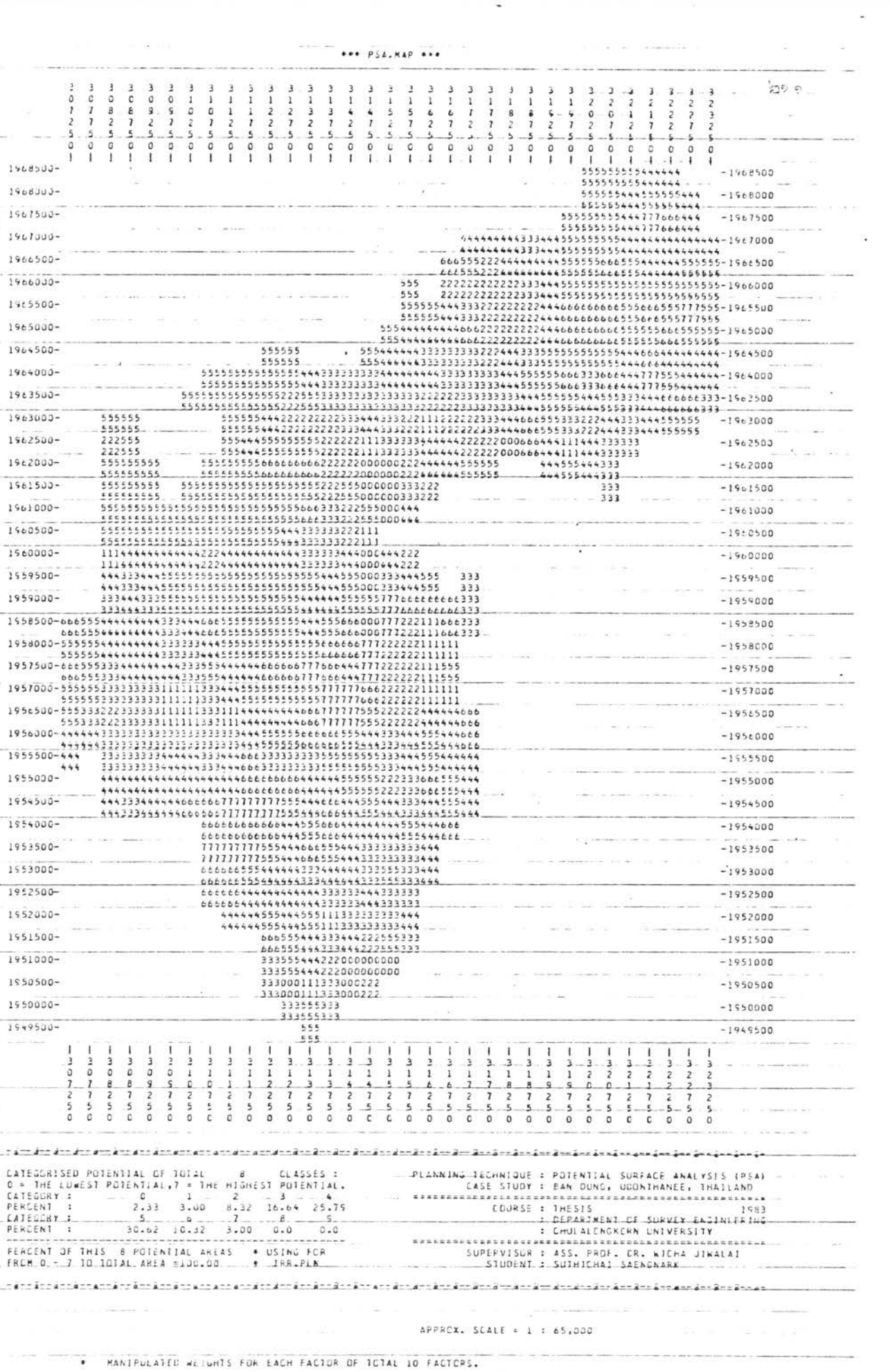
COURSE : THESIS 1993
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGNAPK

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SFR= 0.0	2 SFP= 0.0	3 WTR= 0.0	4 ROD= 0.0	5 POP= 0.0
6 PLN= 0.0	7 SLP= 0.25	8 LDU= 0.25	9 SOL= 0.25	10 FLD= 0.25
11 ---=*****	12 ---=*****	13 ---=*****	14 ---=*****	15 ---=*****
16 ---=*****	17 ---=*****	18 ---=*****	19 ---=*****	20 ---=*****



CATEGORISED POTENTIAL OF TOTAL 8 CLASSES :
0 = THE LOWEST POTENTIAL,7 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	2.33	3.00	8.32	16.64	25.79
CATEGORY :	5	6	7	8	9
PERCENT :	30.62	10.32	3.00	0.0	0.0

PERCENT OF THIS 8 POTENTIAL AREAS * USING FOR
FROM 0 - 7 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : BAN DONG, UDONTHANEE, THAILAND

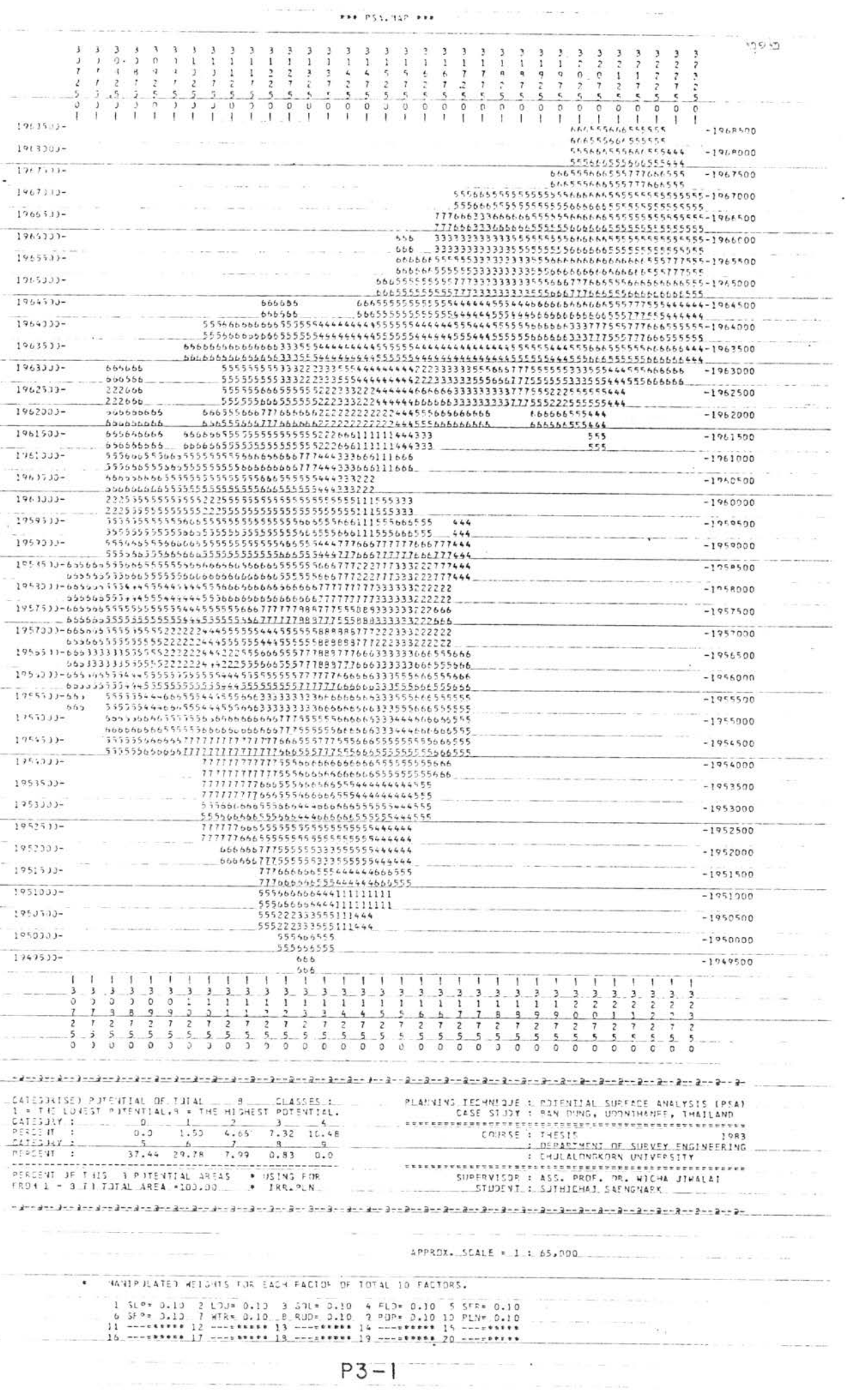
COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGNARK

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0	2 LDU= 0.0	3 SOI= 0.0	4 FLD= 0.0	5 SFR= 0.17	
6 SFP= 0.17	7 WIR= 0.17	8 RED= 0.17	9 POP= 0.17	10 PLN= 0.17	
11 ---=*****	12 ---=*****	13 ---=*****	14 ---=*****	15 ---=*****	
16 ---=*****	17 ---=*****	18 ---=*****	19 ---=*****	20 ---=*****	



CATEGORISED POTENTIAL OF TOTAL 9 CLASSES :
1 = THE LOWEST POTENTIAL, 9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4
PERCENT :	0.0	1.50	4.65	7.32	10.48
CATEGORY :	5	6	7	8	9
PERCENT :	37.44	29.78	7.99	0.83	0.0

PERCENT OF THIS 3 POTENTIAL AREAS * USING FOR
FROM 1 - 9 TO TOTAL AREA =100.00 * IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PSA)
CASE STUDY : PAN DUNG, UDONTHANEE, THAILAND

COURSE : THESIS 1983
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

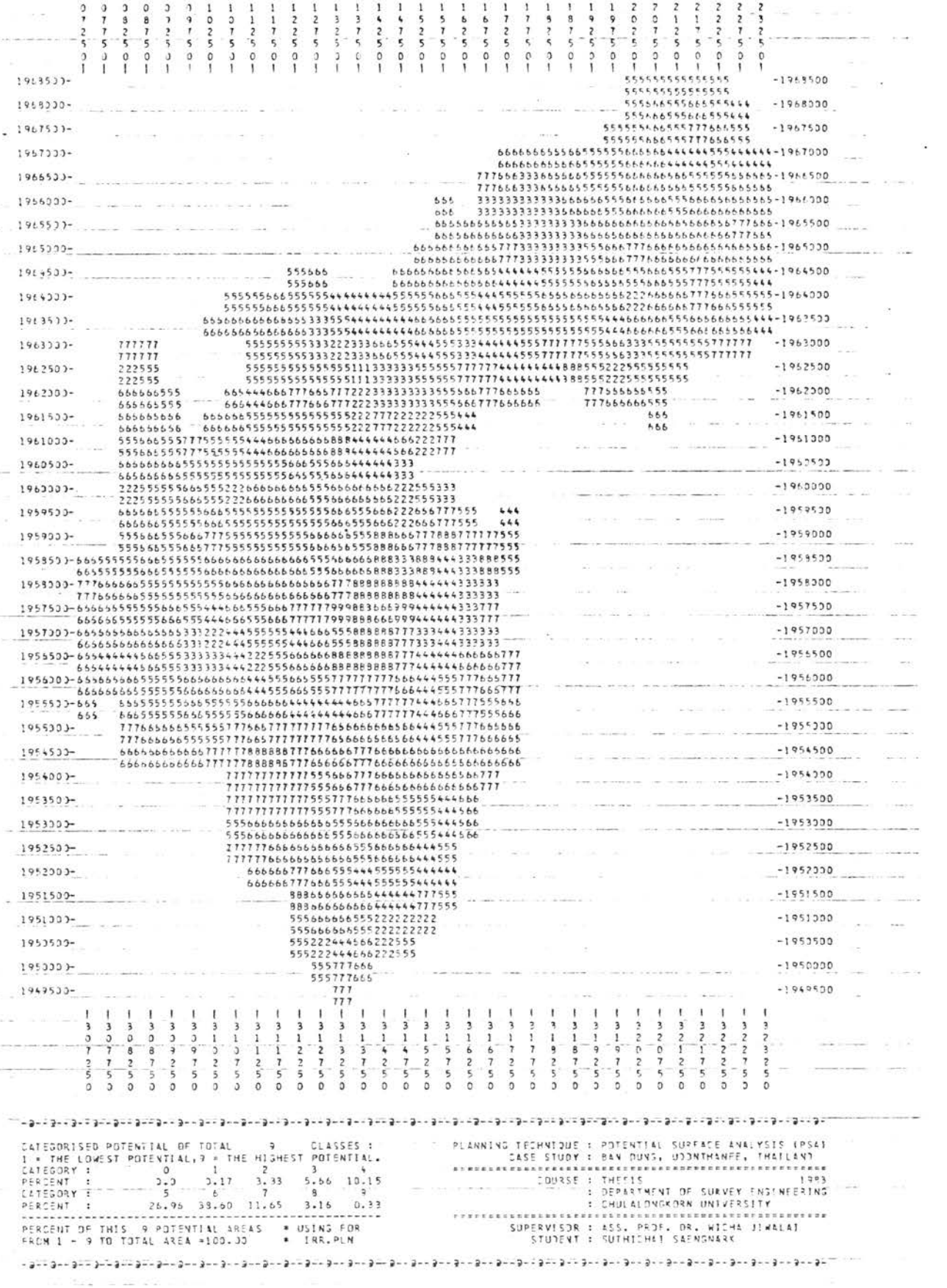
SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGNARK

APPROX. SCALE = 1 : 65,000

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SL= 0.10	2 LU= 0.10	3 SOL= 0.10	4 FLD= 0.10	5 SFR= 0.10
6 SF= 0.10	7 WTR= 0.10	8 RUD= 0.10	9 POP= 0.10	10 PLN= 0.10
11 ---******	12 ---******	13 ---******	14 ---******	15 ---******
16 ---******	17 ---******	18 ---******	19 ---******	20 ---******

*** PS4.MAP ***



CATEGORISED POTENTIAL OF TOTAL 9 CLASSES :
1 = THE LOWEST POTENTIAL, 9 = THE HIGHEST POTENTIAL.

CATEGORY :	0	1	2	3	4	5	6	7	8
PERCENT :	0.0	0.17	3.33	5.66	10.15	26.96	38.60	11.65	3.16
CATEGORY :	9								
PERCENT :	0.33								

PERCENT OF THIS 9 POTENTIAL AREAS FROM 1 - 9 TO TOTAL AREA =100.00

* USING FOR IRR.PLN

PLANNING TECHNIQUE : POTENTIAL SURFACE ANALYSIS (PS4)
CASE STUDY : BAN DUNG, UDONTHANEE, THAILAND

COURSE : THESIS 1993
: DEPARTMENT OF SURVEY ENGINEERING
: CHULALONGKORN UNIVERSITY

SUPERVISOR : ASS. PROF. DR. WICHA JIWALAI
STUDENT : SUTHICHAI SAENGNARK

APPROX. SCALE = 1 : 65,000

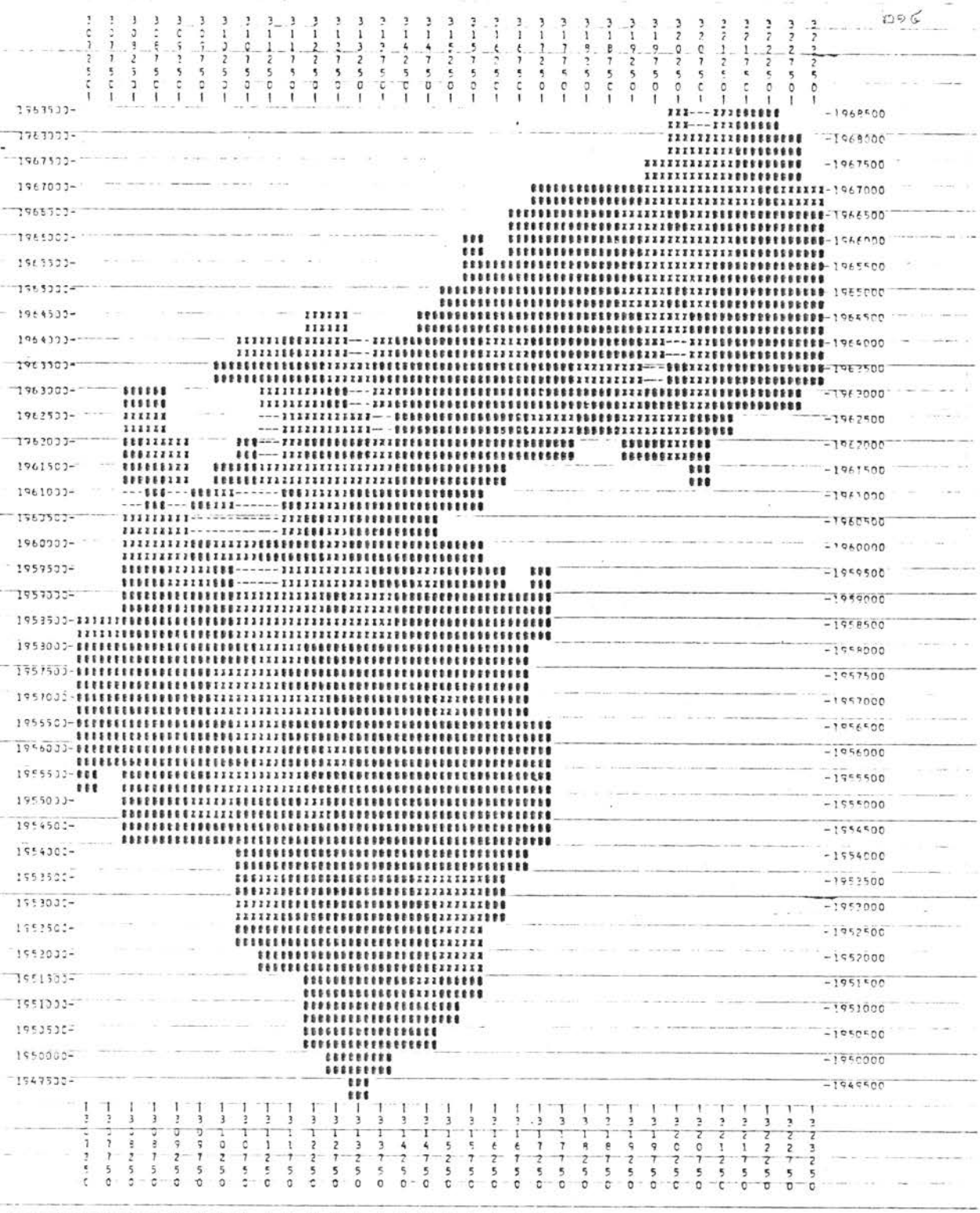
* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 RDD= 0.04 2 WTR= 0.07 3 SEP= 0.07 4 PLN= 0.08 5 POP= 0.09
6 SFR= 0.10 7 PLO= 0.11 8 SOL= 0.12 9 LDU= 0.14 10 SLP= 0.17
11 ---=***** 12 ---=***** 13 ---=***** 14 ---=***** 15 ---=*****
16 ---=***** 17 ---=***** 18 ---=***** 19 ---=***** 20 ---=*****

-: A LAND INFORMATION SYSTEM :-

-*- GRAY MAP -*-

096



CATEGORY : 0 1 2 3 4 5 6 7 8 9

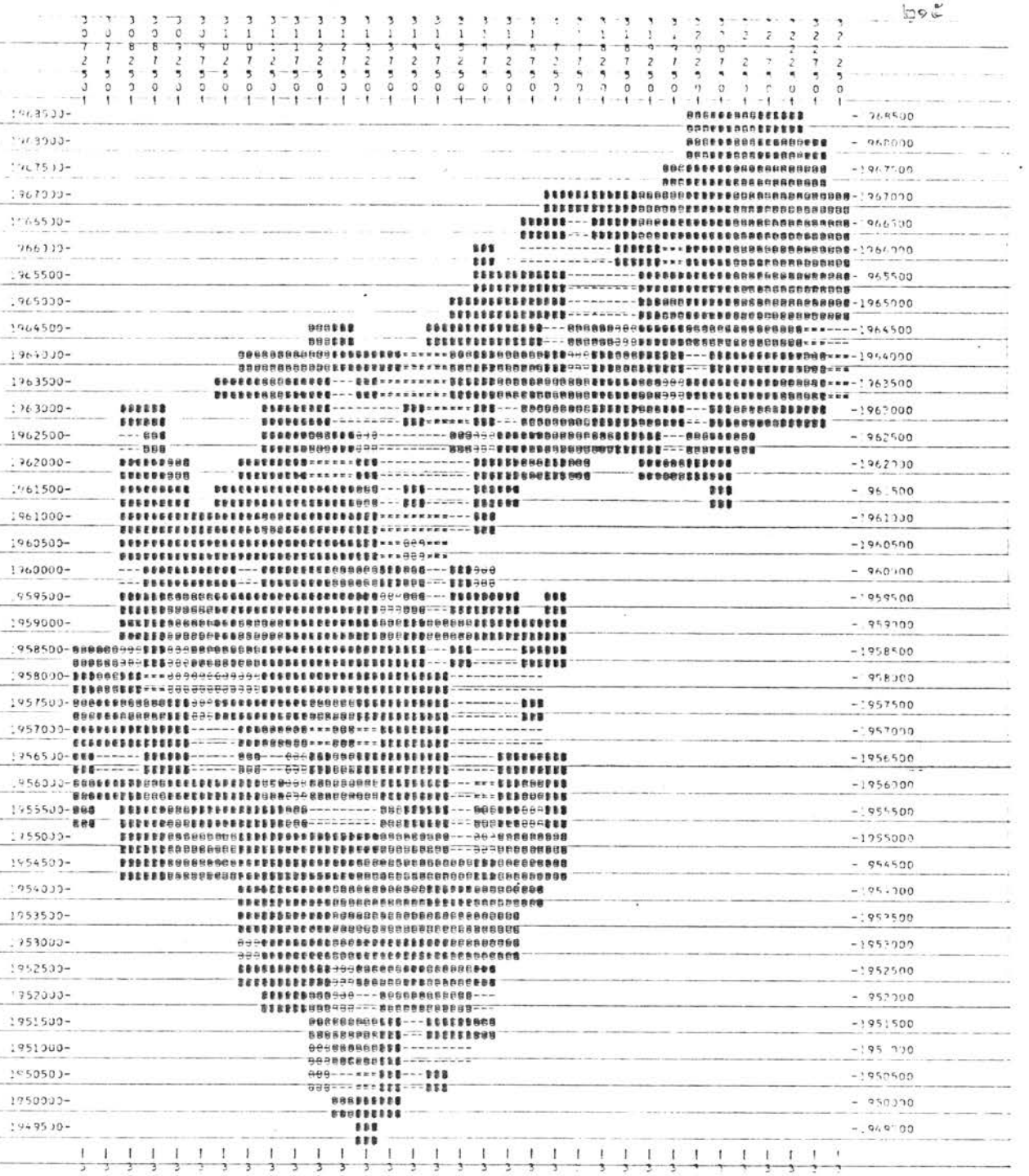
PERCENT : 3.00 0.0 0.0 0.0 0.0 24.63 0.0 0.0 0.0 72.38

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IRR.PLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 LDU= 0.0 2 SOL= 0.0 3 FLD= 0.0 4 SFR= 0.0 5 SFD= 0.0
6 WTR= 0.0 7 ROD= 0.0 8 POP= 0.0 9 PLN= 0.0 10 SLP= 1.00
11 ---***** 12 ---***** 13 ---***** 14 ---***** 15 ---*****
16 ---***** 17 ---***** 18 ---***** 19 ---***** 20 ---*****

-*- GRAY MAP -*-



CATEGORY : 0 1 2 3 4 5 6 7 8 9

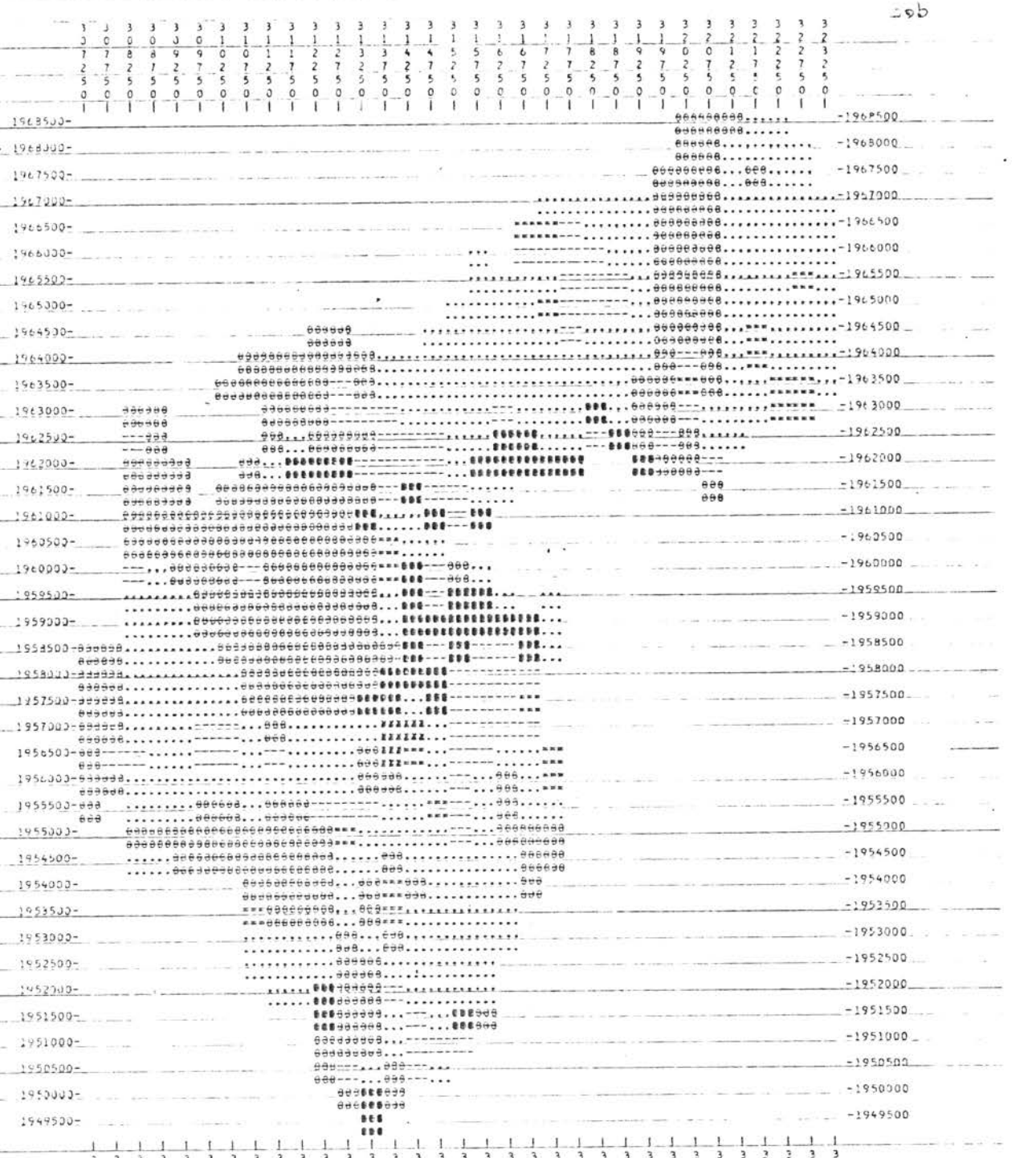
PERCENT : 12.31 0.0 3.83 0.0 3.93 0.0 29.95 0.0 24.13 25.79

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IRONPLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0 2 SOL= 0.0 3 FLD= 0.0 4 SFP= 0.0 5 SFP= 0.0
6 WTR= 0.0 7 ROD= 0.0 8 POP= 0.0 9 PLN= 0.0 10 LOU= 1.00
11 ---******* 12 ---******* 13 ---******* 14 ---******* 15 ---*****
16 ---******* 17 ---******* 18 ---******* 19 ---******* 20 ---*******

-*- GRAY MAP -*-



CATEGORY : 0 1 2 3 4 5 6 7 8 9

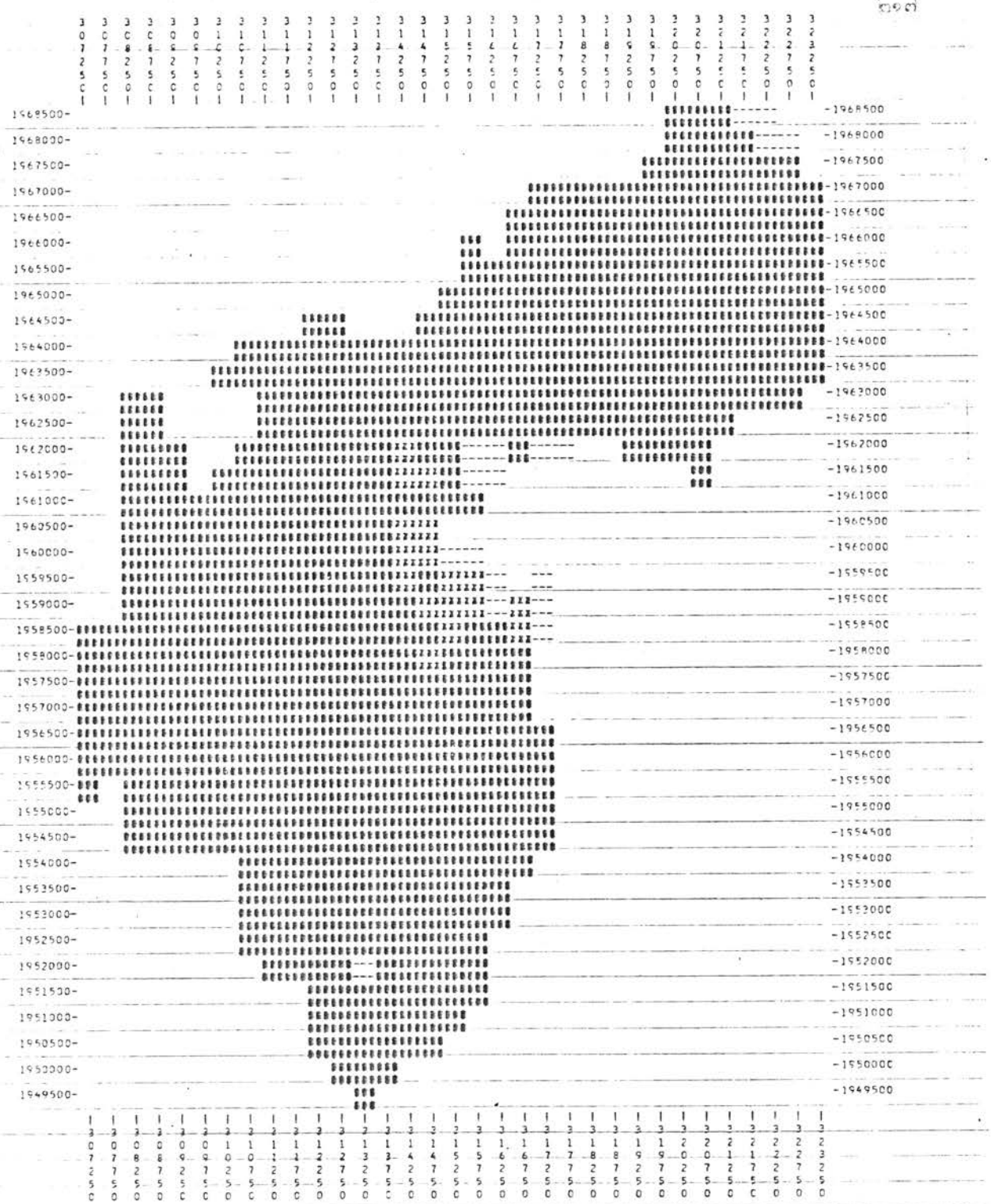
PERCENT : 12.31 41.26 3.66 0.0 35.44 0.50 0.0 0.17 4.99 1.66

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IRR.PLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0 2 LDU= 0.0 3 ELD= 0.0 4 SFR= 0.0 5 SFP= 0.0
6 WTR= 0.0 7 ROD= 0.0 8 POP= 0.0 9 PLN= 0.0 10 SOL= 1.00
11 ---=***** 12 ---=***** 13 ---=***** 14 ---=***** 15 ---=*****
16 ---=***** 17 ---=***** 18 ---=***** 19 ---=***** 20 ---=*****

-*- GRAY MAP -*-



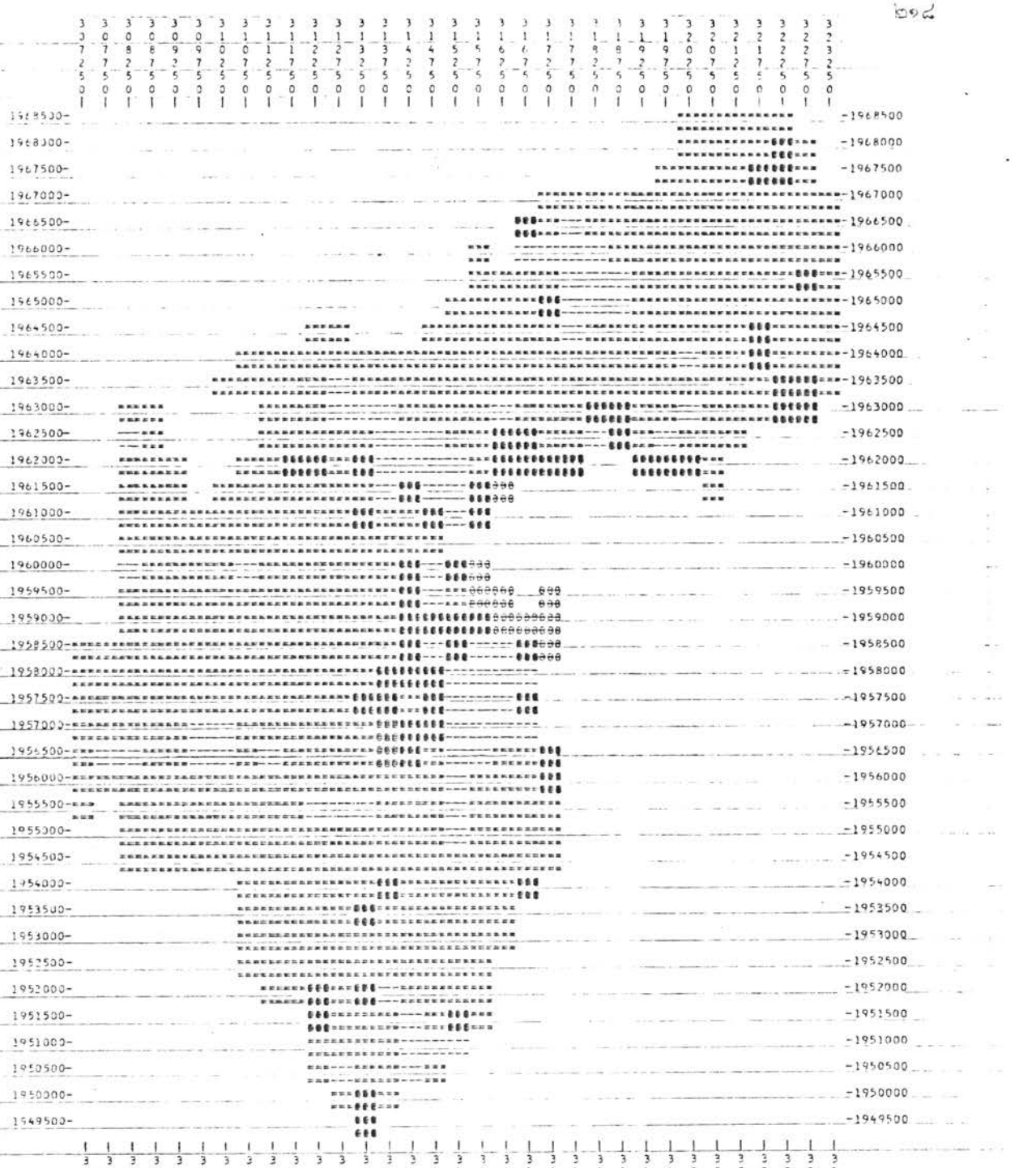
CATEGORY :	0	1	2	3	4	5	6	7	8	9
PERCENT :	3.00	0.0	0.0	0.0	0.0	2.83	0.0	0.0	0.0	94.18

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IRR.PLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLF= 0.0 2 LDU= 0.0 3 SOL= 0.0 4 SFR= 0.0 5 SFP= 0.0
6 WTR= 0.0 7 ROD= 0.0 8 PGP= 0.0 9 PLN= 0.0 10 FLD= 1.00
11 ---****** 12 ---****** 13 ---****** 14 ---****** 15 ---******
16 ---****** 17 ---****** 18 ---****** 19 ---****** 20 ---******

-*- GRAY MAP -*-

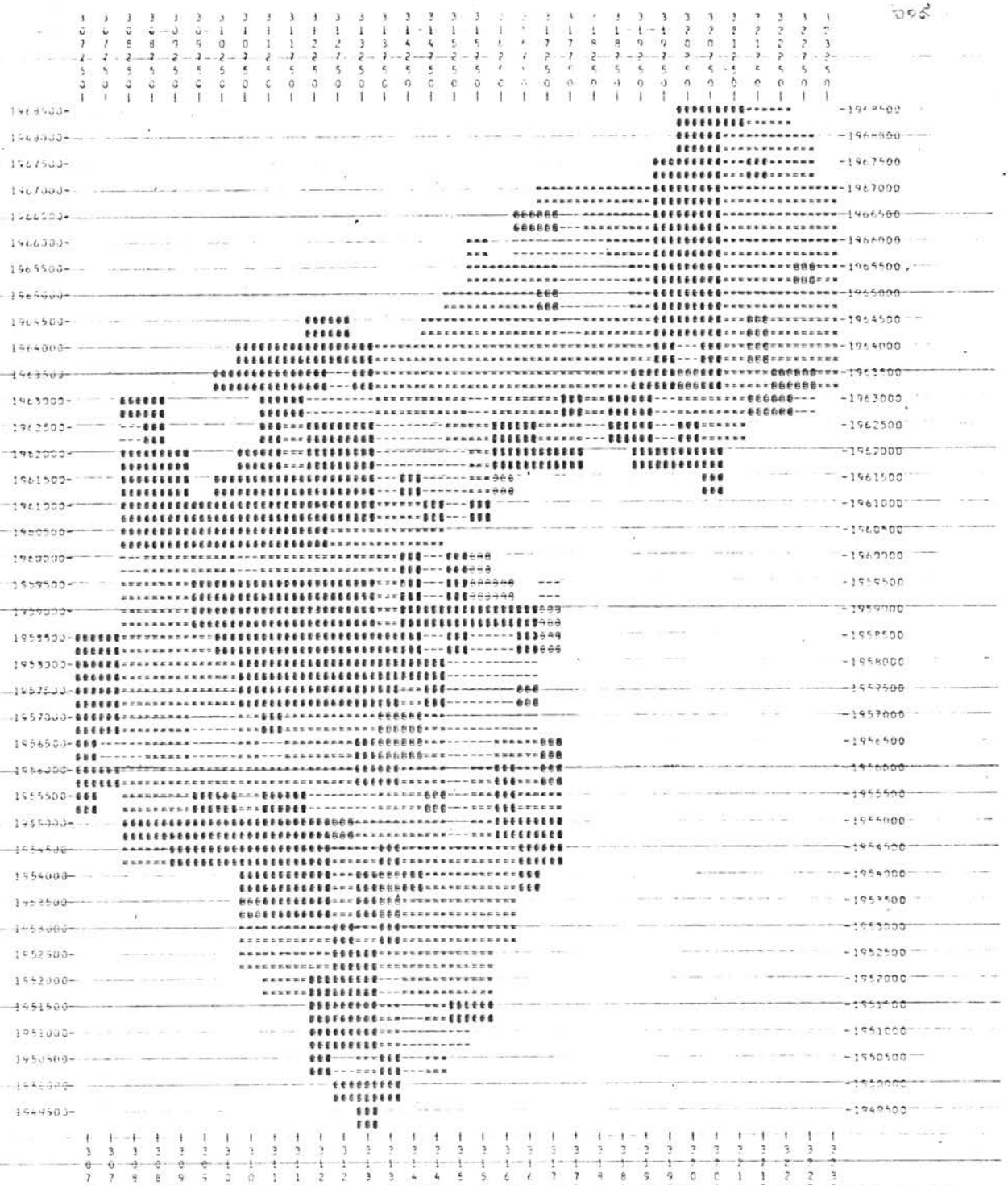


CATEGORY :	0	1	2	3	4	5	6	7	8	9
PERCENT :	12.15	0.0	75.54	0.0	1.50	0.0	0.33	0.0	10.32	0.17

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IRR.PLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLF= 0.0 2 LOU= 0.0 3 SOL= 0.0 4 FLD= 0.0 5 SFP= 0.0
6 WTR= 0.0 7 ROD= 0.0 8 POP= 0.0 9 PLN= 0.0 10 SFR= 1.00
11 ---****** 12 ---****** 13 ---****** 14 ---****** 15 ---******
16 ---****** 17 ---****** 18 ---****** 19 ---****** 20 ---******



CATEGORY : 0 1 2 3 4 5 6 7 8 9

PERCENT : 12.43 0.0 43.26 3.0 1.00 0.0 3.83 0.0 33.78 6.66

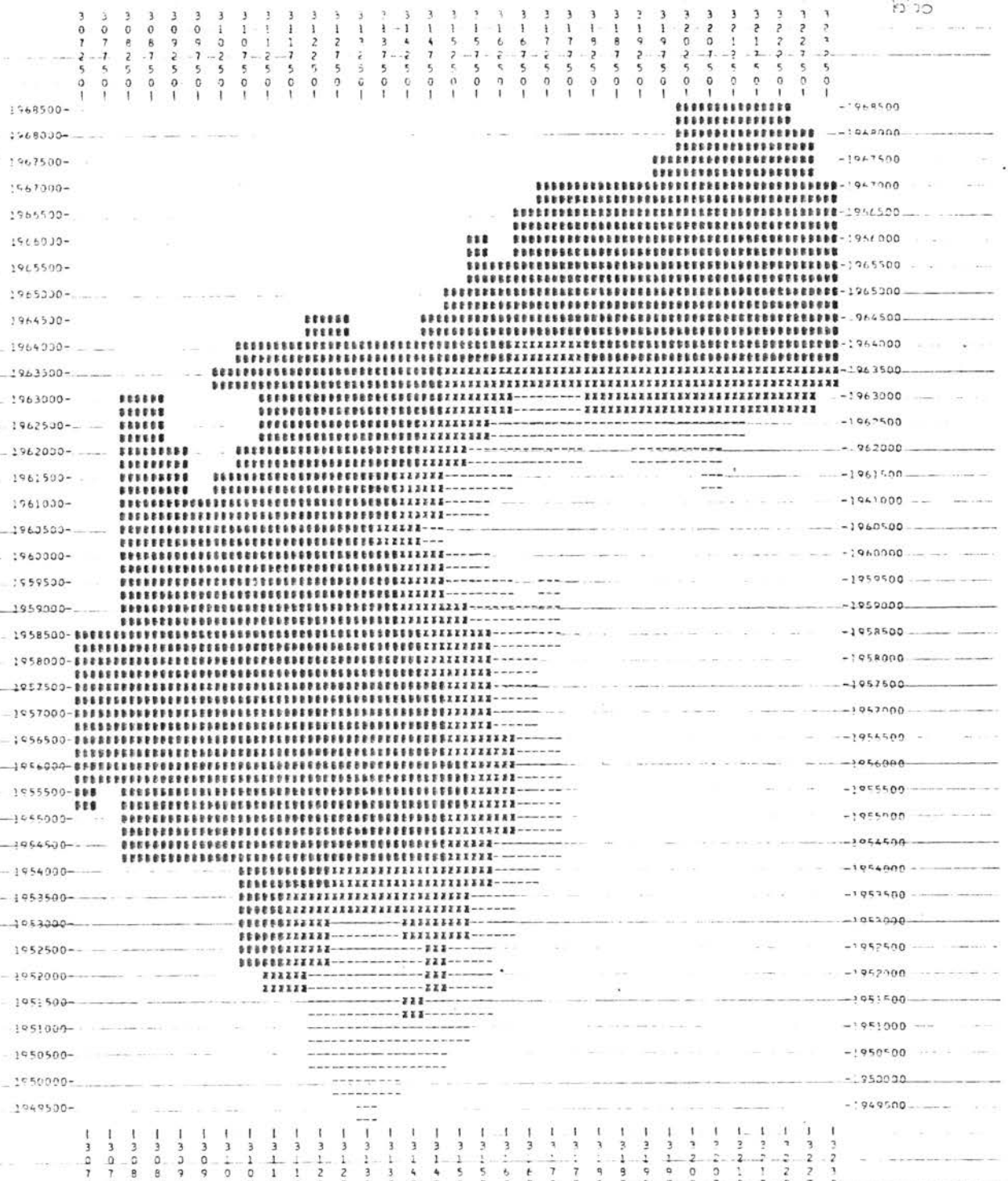
*** COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IPP.PLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

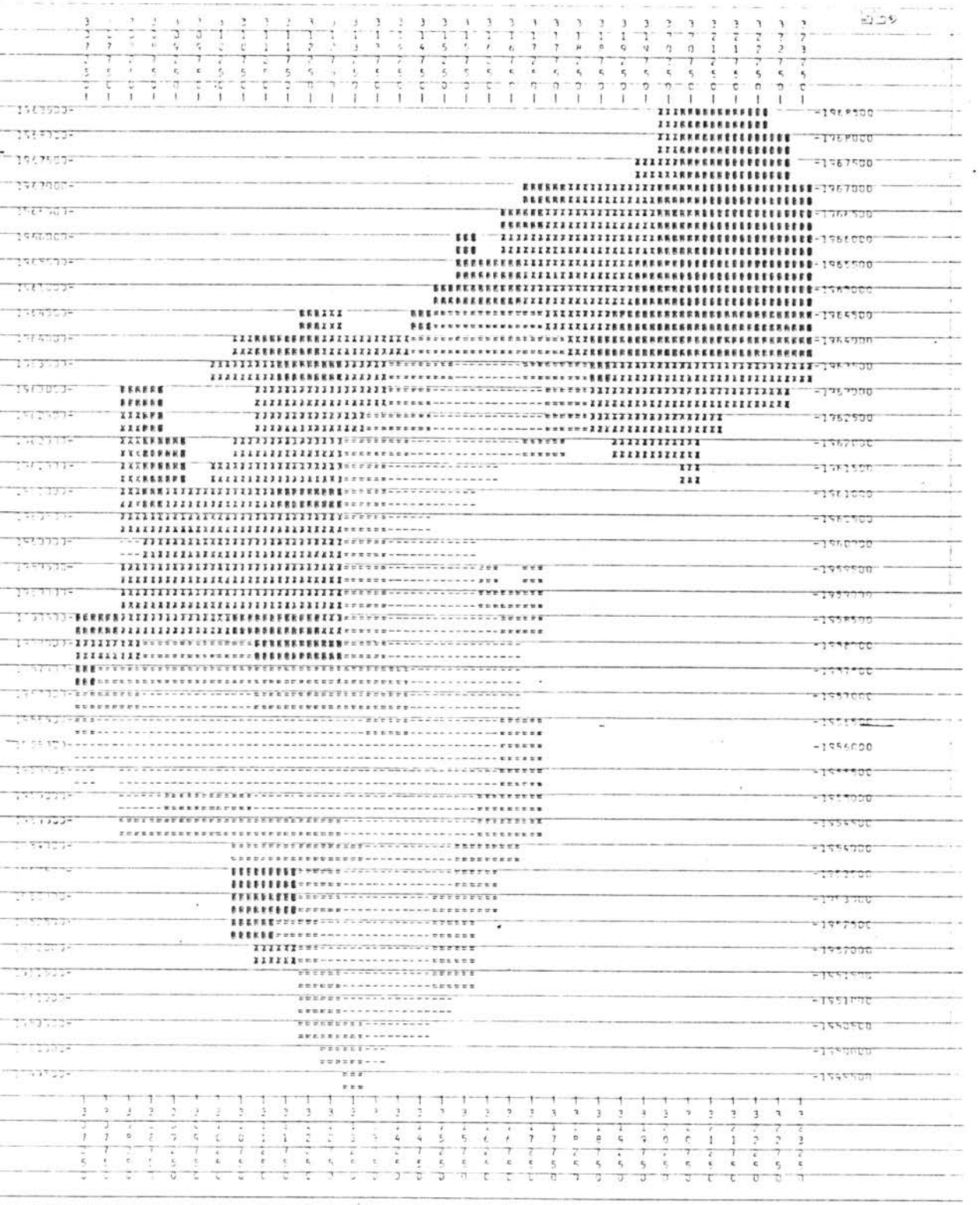
1 SLP= 0.0 2 LDU= 0.0 3 SDL= 0.0 4 FLD= 0.0 5 SFR= 0.0
6 WLN= 0.0 7 ROD= 0.0 8 PCP= 0.0 9 PLN= 0.0 10 SFP= 1.00
11 ---****** 12 ---****** 13 ---****** 14 ---****** 15 ---******
16 ---****** 17 ---****** 18 ---****** 19 ---****** 20 ---******

-: LAND INFORMATION SYSTEM :-

-*- GRAY MAP -*-



=Y==Y==Y==

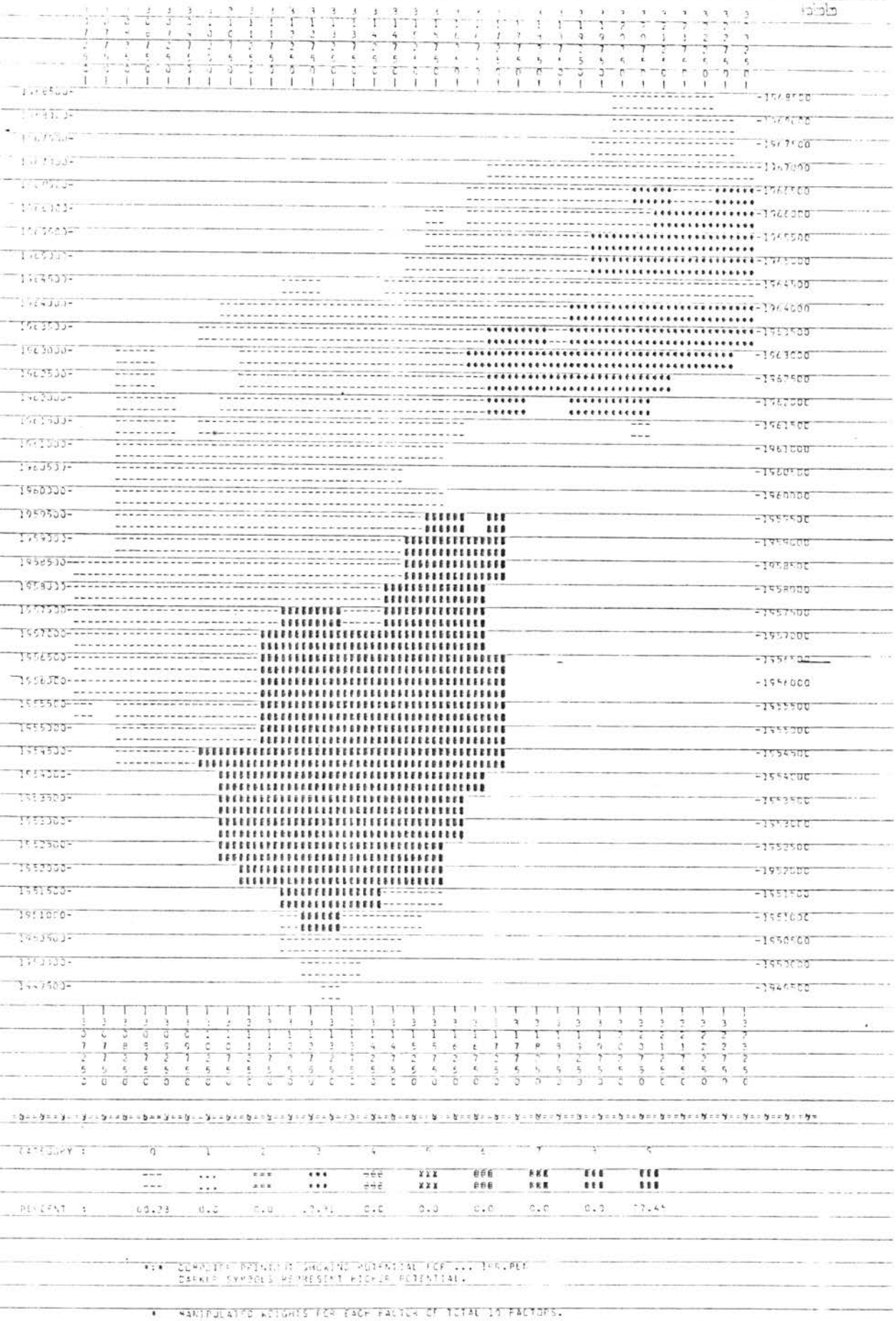


	0	1	2	3	4	5	6	7	8	9
PERCENT :	29.12	0.0	24.94	0.0	0.0	25.79	0.0	13.64	0.0	6.45

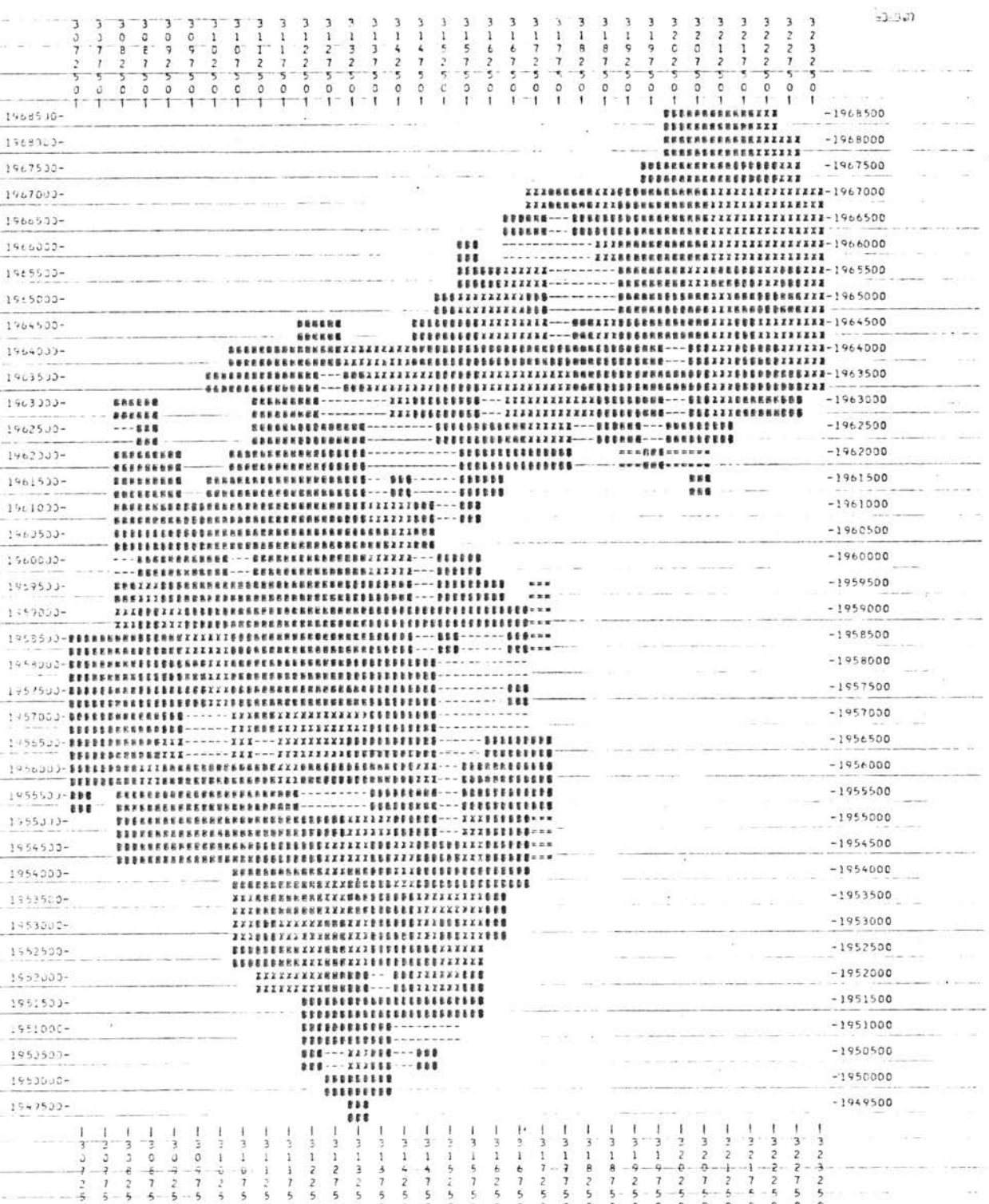
#14 COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... TRAPPER
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATION WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0	2 EDU= 0.0	3 SCL= 0.0	4 FIN= 0.0	5 SFF= 0.0	
6 SLP= 0.0	7 WTR= 0.0	8 POP= 0.0	9 PIN= 0.0	10 PCD= 1.00	
11 ---=*****	12 ---=*****	13 ---=*****	14 ---=*****	15 ---=*****	
16 ---=*****	17 ---=*****	18 ---=*****	19 ---=*****	20 ---=*****	


-** GRID MAP **-
FREQUENCY : 0 1 2 3 4 5 6 7 8 9
PERCENT : 60.23 0.0 0.0 .2.41 0.0 0.0 0.0 0.0 0.0 37.44
*** COMPOSITE POTENTIAL SHOWING POTENTIAL FOR ... 1980,PER
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.
* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.
1 GLP= 0.0 2 LTO= 0.0 3 SOL= 0.0 4 FED= 0.0 5 SFE= 0.0
6 SFP= 0.0 7 WTP= 0.0 8 RDU= 0.0 9 PLN= 0.0 10 RDP= 1.00

-*- GRAY MAP -*-



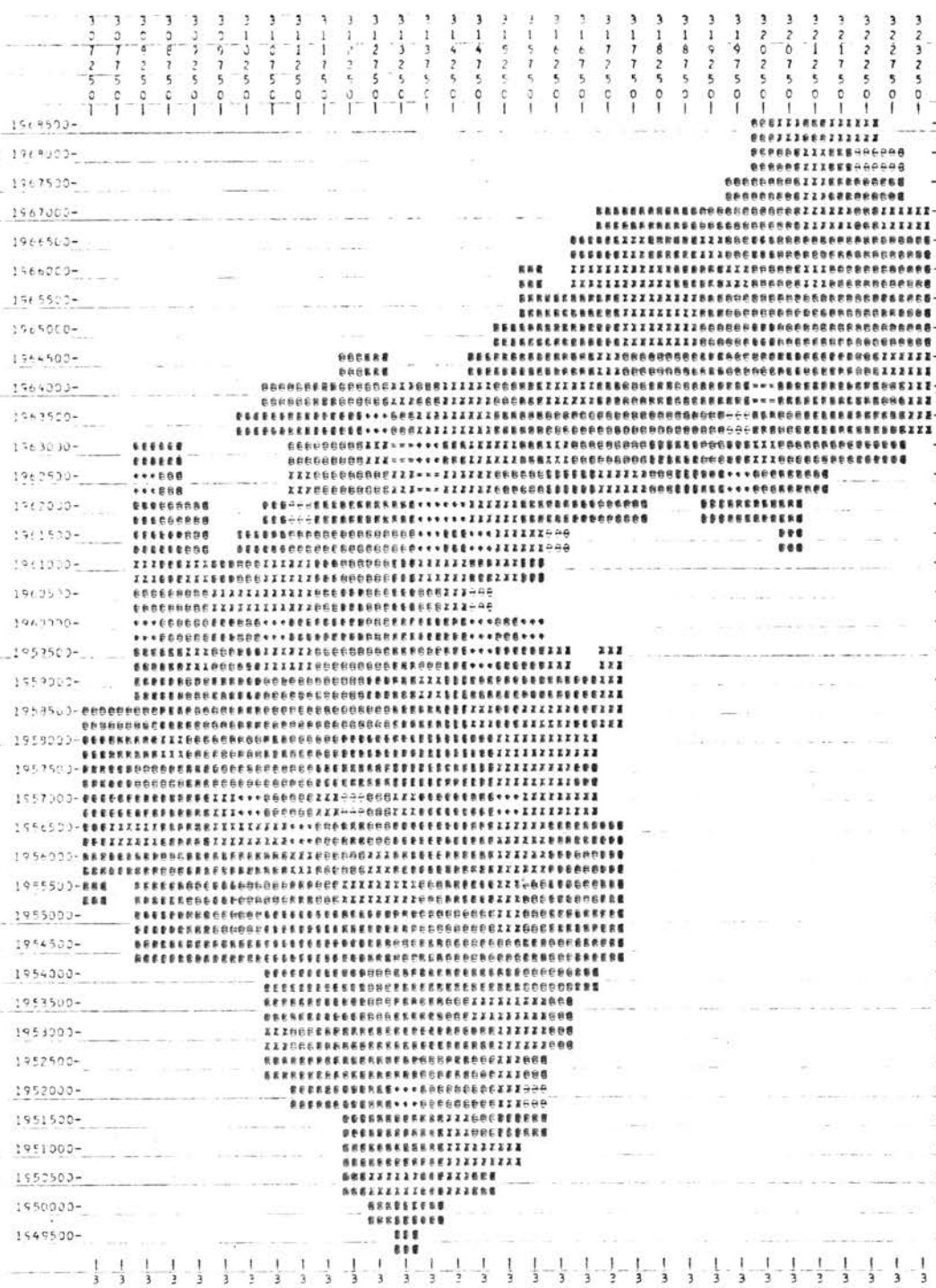
CATEGORY :	0	1	2	3	4	5	6	7	8	9
	---	...	===	+++	###	XXX	###	###	###	###
PERCENT :	11.65	0.0	1.33	0.0	0.0	19.63	0.0	33.61	0.0	33.78

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... INK.PLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0 2 LUD= 0.0 3 SOL= 0.0 4 FLD= 0.0 5 SFR= 0.0
6 SFP= 0.0 7 WTR= 0.0 8 RUD= 0.0 9 POP= 0.0 10 PLN= 1.00
11 ---****** 12 ---****** 13 ---****** 14 ---****** 15 ---******
16 ---****** 17 ---****** 18 ---****** 19 ---****** 20 ---******

-*- GRAY MAP -*-



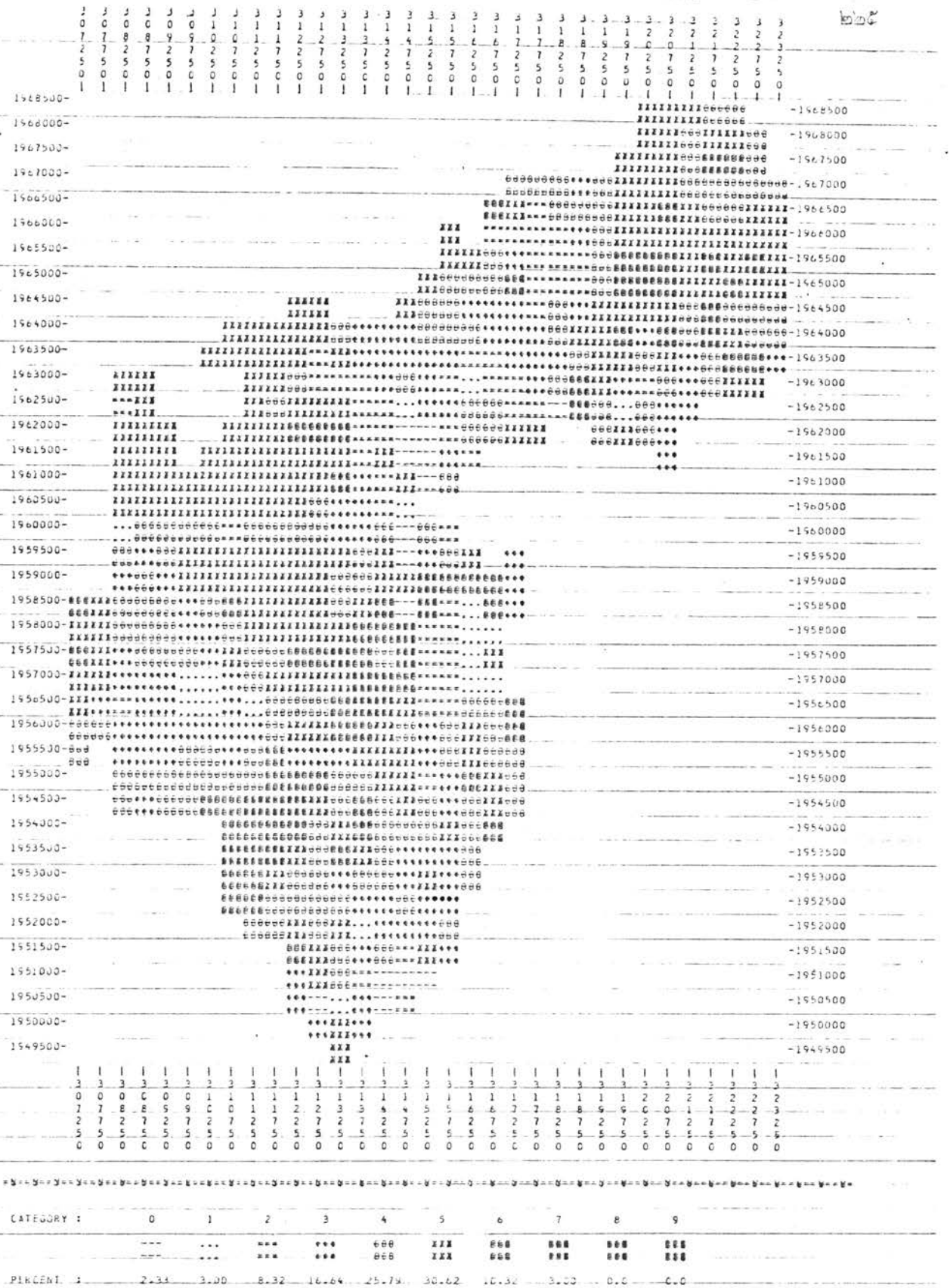
CATEGORY :	0	1	2	3	4	5	6	7	8	9
	---	...	===	+++	###	|||	@@@	|||	|||	|||
	---	...	===	+++	###	|||	@@@	|||	|||	|||
PERCENT :	0.0	0.0	0.50	1.83	1.33	19.80	30.62	27.62	14.48	2.83

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IRP.PLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SFP= 0.0 2 SFP= 0.0 3 WTR= 0.0 4 ROD= 0.0 5 POP= 0.0
6 PLN= 0.0 7 SLP= 0.25 8 LDU= 0.25 9 SOL= 0.25 10 FLD= 0.25
11 ---=***** 12 ---=***** 13 ---=***** 14 ---=***** 15 ---=*****
16 ---=***** 17 ---=***** 18 ---=***** 19 ---=***** 20 ---=*****

-*- GRAY MAP -*-



CATEGORY : 0 1 2 3 4 5 6 7 8 9

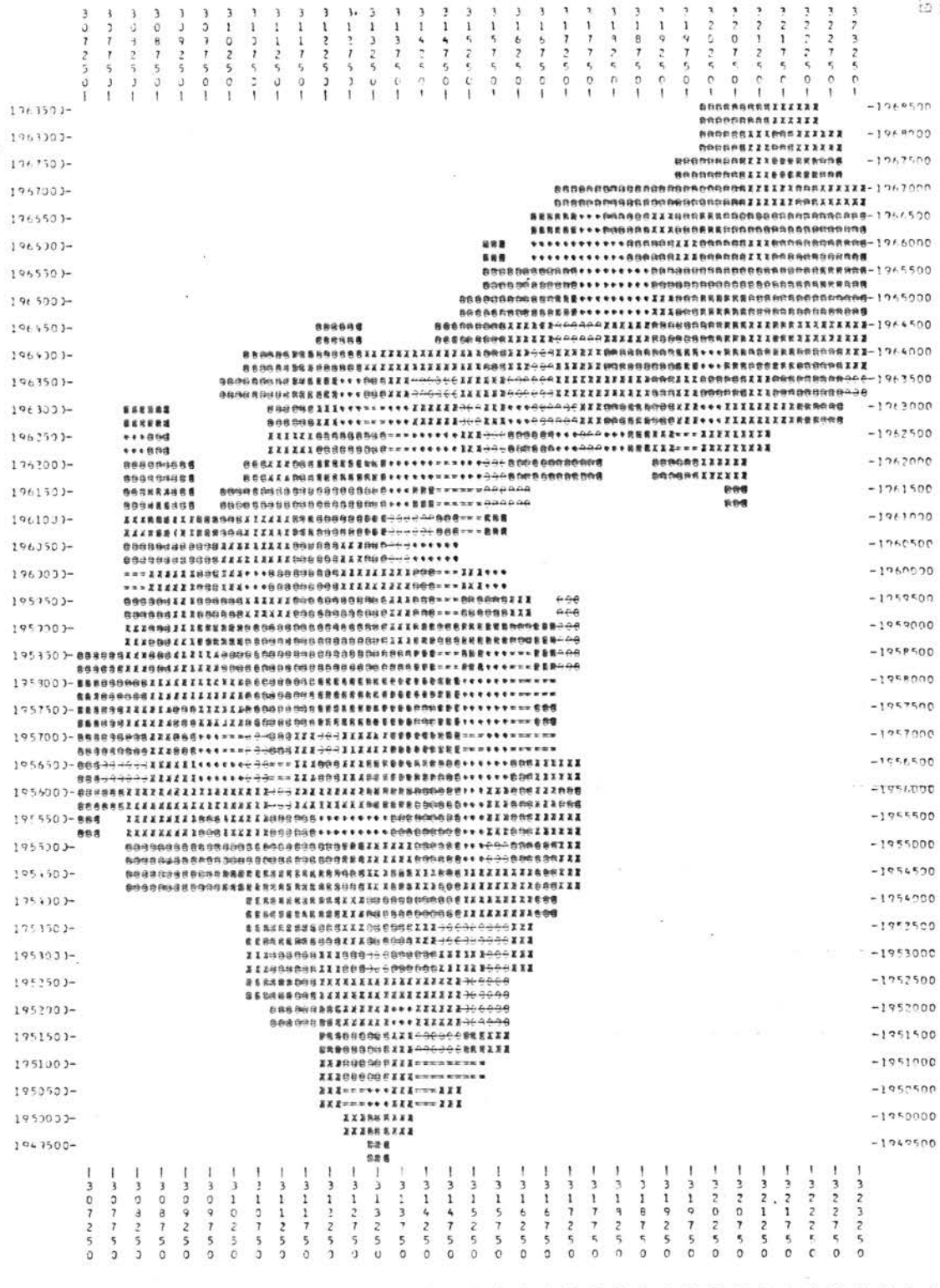
PERCENT : 2.34 3.00 8.32 16.64 25.79 30.62 16.32 3.00 0.0 0.0

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IRK.PIN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.0 2 LDU= 0.0 3 SOL= 0.0 4 FLD= 0.0 5 SFR= 0.17
6 SFP= 0.17 7 WTR= 0.17 8 RDD= 0.17 9 POP= 0.17 10 PLN= 0.17
11 ---=***** 12 ---=***** 13 ---=***** 14 ---=***** 15 ---=*****
16 ---=***** 17 ---=***** 18 ---=***** 19 ---=***** 20 ---=*****

-: A LAND INFORMATION SYSTEM :-
*** GRAY MAP ***



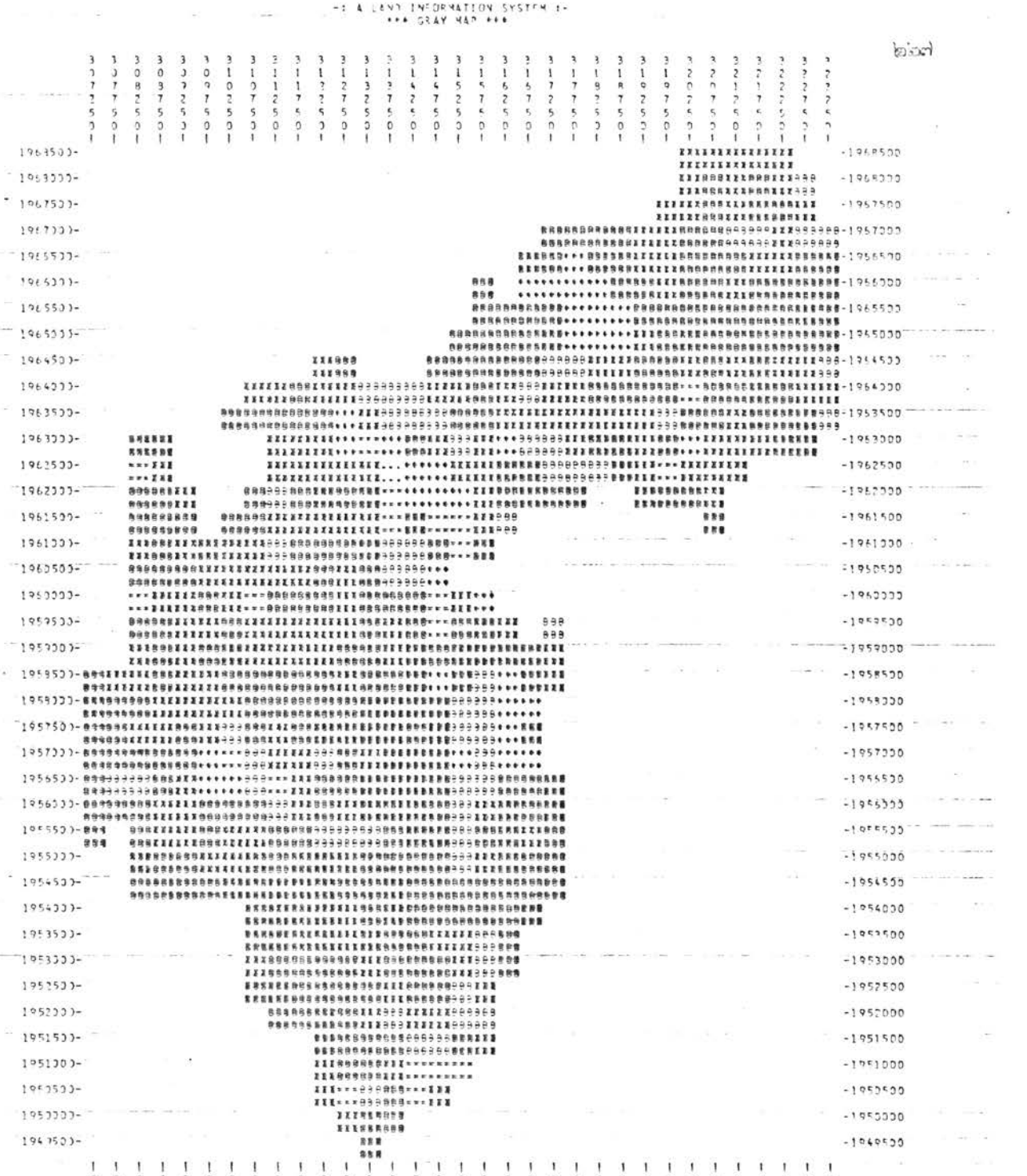
CATEGORY :	0	1	2	3	4	5	6	7	8	9
PERCENT :	0.0	0.0	4.15	1.15	6.66	26.96	40.10	12.15	1.83	0.0

: COMPUTER PRINTOUT SHOWING POTENTIAL FOR ... IRR.PLN
DARKER SYMBOLS REPRESENT HIGHER POTENTIAL.

* MANIPULATED WEIGHTS FOR EACH FACTOR OF TOTAL 10 FACTORS.

1 SLP= 0.10 2 LDU= 0.10 3 SOL= 0.10 4 ELD= 0.10 5 SFP= 0.10
6 SFP= 0.10 7 ATR= 0.10 8 ROD= 0.10 9 POP= 0.10 10 PLN= 0.10
11 ---=***** 12 ---=***** 13 ---=***** 14 ---=***** 15 ---=*****
16 ---=***** 17 ---=***** 18 ---=***** 19 ---=***** 20 ---=*****

-: A LAND INFORMATION SYSTEM :-
*** GRAY MAP ***

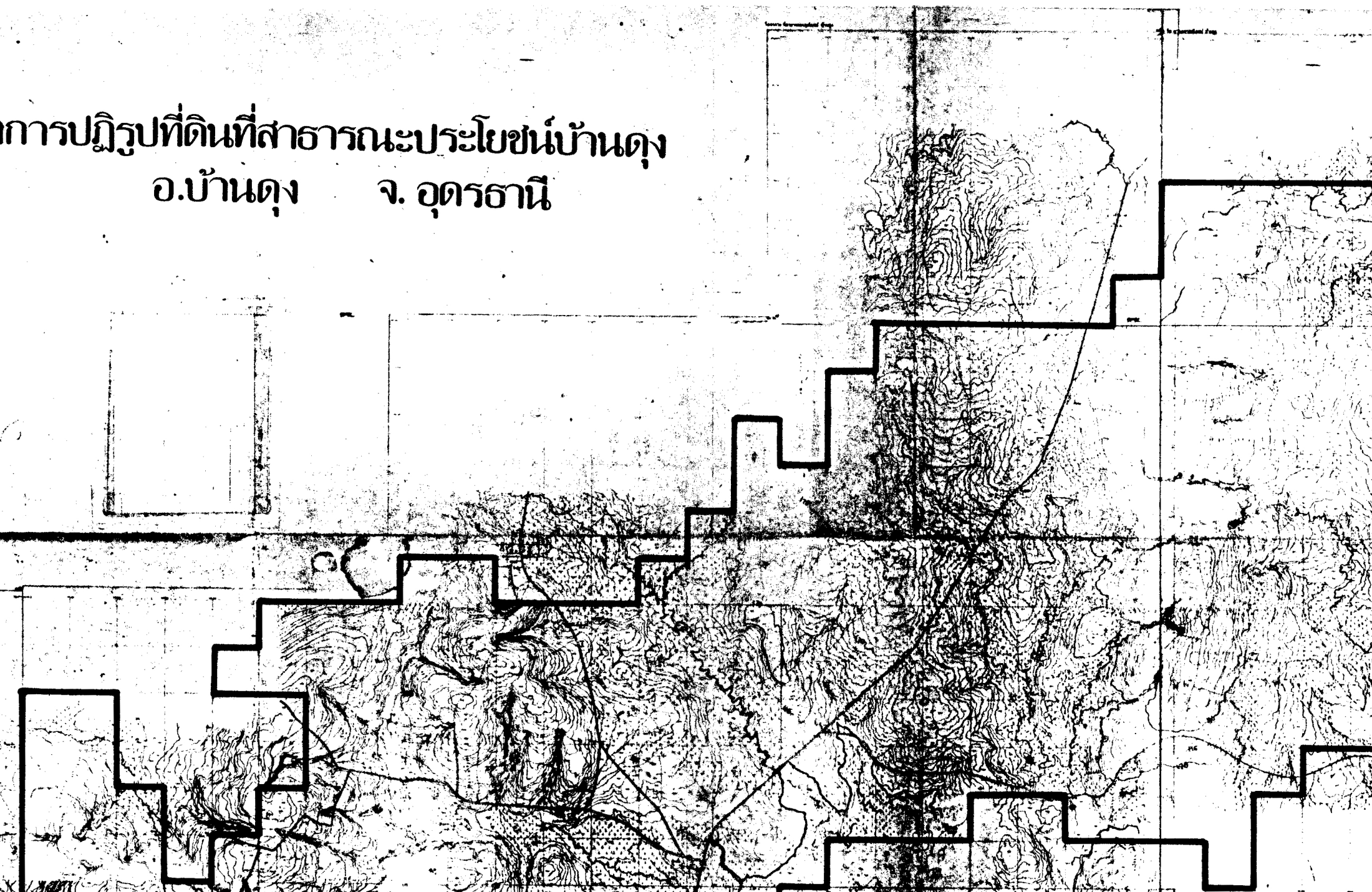


=y=y=y

ภาคผนวก ง.

แผนที่โครงการซึ่งแสดงระบบแนวคลองส่งน้ำหลัก

การปฏิรูปที่ดินที่สาธารณะประโยชน์บ้านดุง
อ.บ้านดุง จ. อุดรธานี



ประวัติผู้เขียน

นายสุทธิชัย แสงนาค เกิดวันที่ ๗ กรกฎาคม พ.ศ. ๒๔๙๘ ที่กรุงเทพมหานคร สำเร็จการศึกษาจากมหาวิทยาลัย Adamson ประเทศฟิลิปปินส์ ในสาขาวิศวกรรมโยธา เมื่อปี พ.ศ. ๒๕๒๐ ปัจจุบันรับราชการในตำแหน่ง วิศวกรโยธา ๔ กองวิศวกรรม สำนักผังเมือง