

GhpeJ nfhsS k; ti fapy; Maj j khf , UggNj Gtpapay; fy;tp' vd ti uaWffpwJ.

- , ej myF> Gtpapay; ghl k; fl ej fhyj j py; mi l ej tshrrp mj d; nghUslffk; kwWk; mj py; Vwgl l khwwqfs; kj hd mbggi li a khz thfS fF mwpKfk; nrafj pwJ. , J fbf;fz l myFfs py; tpsffggl tpUf;Fk; Gtpapai y GhpeJ nfhsS k; , awGtpapay; kwWk; nray;Ki w j pd; gwwpa mwpTf; fj Tfi sj ; j pwf;pwJ.

Gtpapai y ti uaWj j y;

- Gtpapay; c yfpd; kpfj ; nj hdi kahd Gtp mwp;tpay;fS s; xdw;hFk; Gtpapay; fUj ;J f;f;sp; Mukgk; fpNuff j j ;J ttpayhsh;f;sp; k;Ue;J j hd; nj hl q;f;paJ. vul NI hn j dp] ; (Eratosthenes) vDk; fpNuff mwpQh; Gtpapay; vdw nrhyi y tbt i kj j hh; fpNuff nkhopay; 'Gtp' vdg; nghUsgLk; '[pNah' (Geo) vdw nrhyi yAk> tpthj j y; vdg; nghUsgLk; f;uhg;pd; (Graphien) vdw nrhyi yAk; , i z j ;J Gtpapay; vDk; nrhyi y c Uthf;f;pd;hh; vdNt Gtpapay; Gtpi a tpthf;Fk; xU ghl k; vdyhk; fhy tshrrp; Gtpapay;hdJ Gtpapd; , aw; j di kfs; kwWk; kdj , dk; vt;thW Gtpapd; j di k;f;Nfwg khwpf; nfhz l Gtpi aAk; khwwp tUf;pd;wJ vdg; Nghdw fUj ;J f;f;f; s vLj ;J i u;f;Fk; xU fi y kwWk; mwp;tpay; ghl khf c Ukhwp te;J;ssJ. Ma;Tggaz k; kwWk; Gj pa fz l q;f;f; sf; fz l G;pbggj d; %yk; Gtpapay; gpwe;J. KdG Gj pa epyggugG kwWk; fi y; topi af; fz l G;pbj ;J epi yti ugl k; j ahhj ;J mtwi w tpsf;Ft;J j hd; Gtpapay;pd; Nehf;f;khf , Ue;J. J. gp;ddh; Gtpapay; Gtpapd; epy;Nj hwwqfs> Nguhopfs> t;spkz l yk; Fw; j mwp;tpay; u;f; pahd fUj ;J f;f;f; sAk> kdj , dk; Gtp; #oy;py; Vw;gl ;J k; khwwq;f;f; sAk; ty;AWj j j ; nj hl q;f;paJ. Gtpapay;pd; fUj ;J f;f;S k> mtwi wf; fz l wpAk; Ki wf;S k; mbf;fb khwp;fnfz NI , Uf;f;pd;wd.

RUF;fkhf \$wp;dh; Gtpapay;hdJ

v gd;Kfj j di k nfhz l J.

v Gtpapd; Nfhsq;f;sp;Yk> Nfhsq;f;S f;F , i l NaAk; c ss nj hl hGfi sAk; Fw; j ;J g; gb;ggJ.

v j fty; j ;ul ;Lj y; kwWk; Maj y; %ykhf epyti ugl q;f;f; sAk> fh;lr;g; gl q;f;f; sAk; c Uthf;Ft; j py; Gj pa c j j ;f;f; sAk; fU;tp;f;f; sAk; nray;gl ;J j y;

v R;w;W;#oy; kwWk; kdj g; gpurri df;S f;F epi yahd j ;T fh;Z k; nray; vd ti uaWff;fyhk;

Gtapaaypd; kuGfs;

- Gtapaaypd; tshrrp eł : tuyhwi wf; nfhz : J. rpy Kei ja Gtapaay; Ma;Tfs; ehyhapuk; tUl qfS f;F Kwgl; i t. gz i la Ma;thshfs; eł : gaz k; nraJ Gj pa epyggFj pi a ti ugl khf; f;pdh; 600 ngh.M.K. ghg; Nyhd; pah; fshy; gadgLj j ggl; f; spkz; tpyi yr; rhd; Wfs; j wNghi ja mfo; thuharr; pad; %yk; cyf; w;F nts; pf; nfhz uggl; LssJ. mej f; fhyfl; i j j py; gz i la f; pNuff mwp; Qh; fshy; Gtapaaypd; mbggi l Ak; nj hl f; fKk; VwgLj j ggl; i hYk; > gpei ja mwp; Qh; fshy; etld Gtapaaypd; J}z fs; ep; Wtgg; l; d. f; pNuff mwp; Qh; f; spy; Kj di kg; Gtapaayhsh; fshf Fwgg; pl; j j f; fth; fi sf; \$wyhk; mth; fS s; n` NuhNI hl] ; (Herodotus), j hy] ; (Thales), mh] ; i hl by; (Aristotle) > vul NI hn j dp] ; (Eratosthenes) Nghd; Nwhi uf; \$wyhk; gpd; dh> Nuhkhdpah> mNugpah> , ej pah> rldh; guhdR ehl; i th; fs> n[hkhdpah> Mq; f; i Nyah; kw; Wk; mnkh; p; f; Gtapaayhsh; f; s; Gtapaaypd; tshrrpi aAk; fUj ; Jr; nrwpi tAk; NkkgLj j pdh;
- Gtapaaypd; gh; iz hk tshrr; p; ay; mj d; mZ FK i w> j j ; J tk; kw; Wk; nray; Ki wfs; ngh; pa khw; w; j ; f; F c sshapd. GtapaayhdJ xU nghUs vqNf; > vt; thW> Vd; mi ke; JssJ Nghdw fUj ; J f; fi s t; p; s; f; f; Kei ja epyti u gl qfi sg; gadgLj j p Gt; p; ggugg; py; VwgLk; ep; fo; T; fs; pd; , l qfi sAk> ep; fo; T mi kgGfi sAk; mj w; fhd fhuz qfi sAk; fz ; i w; p; f; w; J. mt; thW fz ; i w; p; aggl; i mi kt; pl qfs> epyj Nj hwwk> kff; snj hi f> kw; Wk; t; p; trhak; Mf; patw; w; pd; mbggi l apy; t; p; s; f; f; ggl; i d.

Gtapaaypd; tshrrpi a %dW epi yfshfg; gh; p; f; f; yhk; mi tahtd>

Ø fz ; Lg; p; bgGf; fhyk; (ngh.M. 1400 Kj y; - 1800 ti u)

Ø 1800 Kj y; 1950 ti u

Ø 1950 f; F gpei ja fhyk;

fz ; Lg; p; bgGf; fhyk; (1400 - 1800)

- , f; fhyf; fl; i j j py; Gtapaaypd; fUj ; J f; fS k; nray; ti ffS k; KOi k ngwhky; xU fUtpd; Nj hwwk; Nghy; , Uej J. , f; fhyf; fl; i khdJ Gj pa epyggugGfi sf; fz ; i w; p; t; j w; F th] Nfhl fhkh> f; p; h] NI hgh; nfhykg] ; Nghd; Nwhhpd; ntwwp; gaz qfs; nghpJ k; c; j t; pahf , Uej d. l Nuhgght; pd; gy ehLfs; , f; fhyf; fl; i j j py; Gj pa epyggugGfi sf; fhz j ; j qf; Sila vz ; z ; p; yl qfh gaz qfi sj ; nj hl q; f; pd , j Nj l yfs; ep; rrakhf ngUk; nry; t; qfi sf; nfhz ; L tUk; vdgj hy; mj w; fhd epyj Nj hwwq; fs> kdj thot; pl qfs> gaz g; ghi j fs; Nghd; wtwi w c s; sl f; f; pa Gj pa epyti ugl qfs;

c Uthf;fggl;l d.NtNudpa] ; j hd; fz;l Neubj; j ftyfi sAk
Kj di k msTfi sAk; Gtpapaypy; Gjpā fUj;Jffi sg; GFjj
gadgLjj pdhh; Rkhh; E)W Mz LfS fF , jji fa FwpgGfNs
Gtpapaypd; tshrrpf;Fg; nghp k; c j tpd.

1800 Kj y; 1950 ti uayhd fhyk;

- , ffhyf;fl;ljj py; j dggl;l j j;J ttpayhsh;f;spd; gq;f;sgghy;
Gtpapaypd; Nehf;fkhdJ thptilej J. Gtpapaypd; c l;fUj;Jffs;
j dj;Jtk; ngwj; nj hl qf;pd. l Nuhggh kwWk; mnkhp;f;htpy;
GtpapayhdJ typi kahd KdNdwwj; j f; fz;l J.
- , ffhyf;fl;ljj py; Gtpapaypd; Nkkghl bw;fhfg; gy r;q;f;f;s;
Nj hdw;pd. kdj; kwWk; , awGtpapaYf;F n[hkd;pd; mnyf;rhz;l h;
thd; ` kNghy;l > fhuy; hpf;l h; gunl hpf; ul nry; Nghdw mwpQh;f;spd;
gq;f;sgG Kff;pakhdJ. 1844 y; ` kNghy;l; ntsapl;l fh] Nkh] ;
(Cosmos) vDk; E)y; , awGtpapai yAk; epytpai yAk; Ma:T
nraf;pwJ. , eE)y; Gtpapay; gq;f;sggy; Xh; i ky; fyyhf , dwsTk;
fUj ggLf;pwJ.
- kdj; Df;Fk; RwWr; #oYf;Fkhd nj hl hgi d t;sf;Fk; , U
r;ej; i dg; gssr;f;s; Nj hdw;pd. mi t RwWr; #oy; , awi f
KbTfnf;hsi f kwWk; Nj h;T Kj di kfnf;hsi f MFk; RwWr;#oy;
, awi f KbTfnf;hsi fapd; Mj uthsh;f;shd nkf;f;ej; h;
(Mackinder), vyd; nrkgs; (Ellen Semple), ` z bqi d;
(Huntington) NghdNwhh; RwWr;#oy; fhuz p;f;S k; VwgLk; khwwq;f;S k;
kdj; , dj; j pd; nrayfi sj; j hkhdp;f;pdwd vd ekgp;dh; gy
tshe;J tUk; ehLf;sp; y; kdj; , dkhdJ ntssk; twl r; p; gQrk;
epyeLf;fk; Nghdw , awi f NguopTfshy; ghj p;f;fggLf;pdwJ.
, jji fa #oy;f;sp; y; kdj; d; , awi ff;F mbi kahf;pdwdhd;
ehNI hb t;pyq;F tshgG , awi f KbTf; nf;hsi ff;F xU r;wej
c j huz khFk; ehNI hb t;pyq;F tshgG KwwpYk; RwWr;#oy;
rhhej j hFk;
- tpi by; b yhg;shr; Nghdw Nj h;T Kj di kf; nf;hsi f Mj uthsh;f;s;
fwWr; #oy; vdgj kdj; thoi tf; fl;LggLj;Jk; xU fhuz pNa
mdw; j hkhdp;f;Fk; \$W myy vdw fUj; j pi d typAWj; j pdh; NkYk;
kdj; d; , awi fr; #oy; y; VwgLk; r;f;f;fy;fi sf; fi sa NtW khwW
topfi sf; fz;l wptJ;l d; mtd; mi j nraygLj; j vLf;Fk;
KbTFNs kdj; thoi tj; j hkhdp;f;pdwd vdwdh; kdj; d;
RwWr;#oi y khwwp mi kj; J kpf ntggkhd kwWk; Fs;hej #oy; y;
\$l thof;pdwdh; ,] Nuy; Nghdw kpf ntggkhd ehLf;sp; y; Fi wej
ki o > kpf;ej ntggk; tsk;pyy;h kz; Nghdw #oy;fi sj; j hz b
thoe;J nf;hz bUggi j , j wF xU r;wej vLj; J f;f;hl;l hff; \$wyhk;

1950 Mk; Mz Lf;F gpe; j afhyk;

- 1950-Mk; Mz L ti u> GtpapayhdJ mDkhd Ma;Tk; (kpr; rhpahd j ftyfSk; , yyhj > rhj huz fsjj ftyfS; mbggi lapyhd xU fi ygggh khfNt , UeJ tej J. 1950 fsjy> GtpapayhdJ mj d; \$Wfi s tpsff Gjpa tpi pfi s tFj;Jfnfhz L KdNdwwki lej J. , ttpi pfi sg; gadgLj j p vj phfhy epfo;Tfi sf; fz pffyhk; mt;ti f fz pgGfs; rhpahf , Uf;FNkahdhy; vj phfhyj j py; Gtpf;Fk> kdij Fyjj pw;Fk; vj puhf epfof;\$ba j hf;fqfi sf; Fi wffj; j pl;l kpl yhk;
- , ffhyfl;l j j py; Vwgl;l Kffpa KdNdwwkhf , awi f kwWk; khdp l mwptpaypy; mstL Elggfspd; (Quantitative Techniques) gadghl;l f; \$wyhk; Elggfs; vdf; Fwggpl;Tj gyNtW Gssp tptu %yqfshd> epyti uglj; j fty> fsggz pi; j fty> Nrhi dr; rhi yfsjy; ngwggLk; j fty; Mfpatwi w xUqfpi z j j y; MFk;
- mstLg; Gulrp (Quantitative Revolution) Gtpapai yr; fwgj w;fhd Gjpa nj hl ffkhf mi kej J. Gsspttuqfs> fz pi r; rkdghLfs> epz a khj phfs; (Deterministic Models) Mfpatwwpd; gadghl;l mstLg; Gulrp mj pf mstpy; <LgLj;Jf;pdwJ. ngUkghyhd Gtpapayhshfs; vOj;Jffi s tpi vz fNs kpf;g; nghUj j khdJk; mwptpay; rhhej Jk; vd ekgpdh; gl nkhopayk> fhl rpf; Fwggpl;bYk; rpwej epyti uglk; xU Kffpa Gtpapay; fUtahfj; j pfoej J. j wNghJ nj hi y Ez;Z z h;T> Gtpi; j fty; mi kgG> fz pdp nkdngHus; NkkghL Mfpatwwpd; Nkyhd cj tpiAl d; epyti uglj; j ahhgG vz ;Ki wapdhy; (digital) vsj hfpt pl;l J.

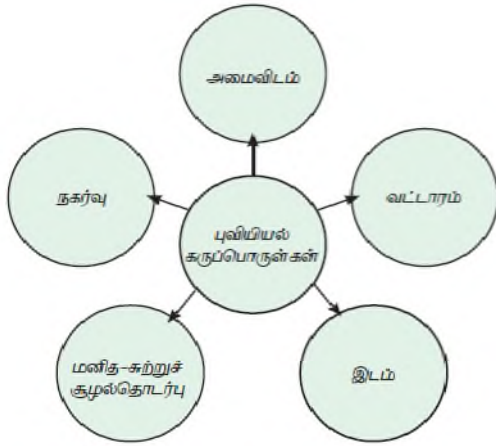
Gtpapayd; fUgngHusfs;

- vej xU ghl j j pw;Fk; Fwggpl;l kuGfs; cz L. mkkuGfi sf; nfhz Ljhd; mwptQhfs; ghl f; fUj;j j j; jahhj J tof;Fthhfs; , ej ti fapy; Gtpapay; ghl Kk; Fwggpl;l kuGfi sf; nfhz LssJ. mtwi wg; gwwpf; ftdkhf fhz Nghk; 1963 y; tpyypak; b Ngl brd; vdgth; ehd;F Gtpapay; kuGfi sg; Gtpapayd; Kffpag; nghUl;fshff; fz;l wpej dh; , ej j; j dj;Jtk; thaej Gtpapay; kuGfshtd; gugG rhh; kuG (epyggujgd; guty; kwWk; ti ffs; - v.fh. kffs; , l gngah;T)> , lk; rhh; Ma;T kuG (, l qfspd; gbepi y> rpwpa mstpy;Ue;J nghpa mstpw;F)> kdij d; - , lk; rhh; kuG , i l NaAss nj hl hG) kwWk; Gtp mwptpay; kuG (Gtpayd; nray; Ki wfs).
- Kffpag; Gtpapay; kuGfi sf; fz;l wpej J Nghy> , gghl j j pw;F Fwggpl;j j ff fUgngHul;fSk; fz;l wpag; gl;Lssd. mnkhpff Gtpapayhshfs; rqfk; lej Gtpapay; fUgngHul;fi sf; fz;l wpe;Jssdh; , J cyfpy; css mi dj;J Gtpapayhsh;fshYk;

VwWf; nfhs;sggl;lJ. , ej l eJ fUg; nghUs;fshtd: mi ktpl k>
, l k> kdj RwWr;#oy; nj hl hG> efh;T kwWk; t l i huk;
Nghdwi tahFk;

Gtapaayy; l eJ fUgnghUl;fs; c ssd. Gtapaai yg; Ghpe;J nfhs;S
c jTk; xU fUtp Gtapaaypd; fUgnghUs; MFk; , J 1984k; Mz;l
mnkhpff Gtapaayhsh; \$l;i kggpy; VwWf; nfhs;sggl;l Nj rpa
Gtapaay; rcfj;jYk; Gtapaay; gbgGffhd mnkhpff Gtapaayhsh;
Gtapaay; ghl f; i fNal bYk; ntsapil ggl;lssJ.

Gtapaay; fUgnghUs;fs;



mi ktpl k;

Gtapaay; c ss Xh; mi ktpl j i j , uz l ti ffsy; tpthpff;fyhk;

1. Jyypa mi ktpl k; , J xh; , l j j pd; ml r kwWk; j hff Nui ffsyd;
%ykhf tpthpff;fggl;fpdwJ. vLj;Jffhl;lhf> nrddi d nrddi uy;
, uapy; epi yaj j pd; Jyypa mi ktpl khddJ.

12° 04' 56' t l f;F ml rNui f kwWk; 80° 16' 32' fpof;F j hff;Nui f
MFk;

2. xggll;l mi ktpl k; , J xU nj hpej , l j j pypUe;J ehk; Fwpggl;Lk;
, l k; vj j pi rapy; vt;tST J}uj j py; mi ke;JssJ vdgi j f;
Fwpggl;LfpdwJ. vLj;Jffhl;lhf> fyyi z ahdJ nrddi d efh;ypUe;J
Rkhh; 350 fp;kP J}uj j py; nj d; Nkw;fpy; mi ke;JssJ.

, l k;

• vyyhtwi wAk; j ddfj Nj nfhz;lss xU gFj pi a , l k; vd
ti uaWff;fyhk; mi dj;J , l qfSk; gpw , l qfspy; , Ue;J
NtWgl;j j pf; fhl;Lk; j dj;J tj; j di kfi sf; nfhz;bUf;Fk;
guq;fki y Gdj [hh;[; Nfhl;l> kpd;l; (m) [hh;[; efh; Nghdw
j kpehl bd; gFj pfi s vLj;Jffhl;lhf; nfhs;syhk;

, l gngah; - epyj Nj hwwqfspd; mbggi l apy; c Uthd Xh; , ljj pd; ngah;

Fwpaik; - efh> flblk> epi dTrrpdck; Nghdwi t mi keJss xU gFj p

#oepi y - Xh; , ljj pd; , lti kgGk; mj i dr; RwwpAss gFj pfS k;

kdj - Rwwr;#oy; nj hl hG;

- , ffUgnghUshdJ> kdj d; #oepi yAl d; vt;thW nraygLfpdwhd; vdgi jAk; kdj nrayghLfs; #oepi yi a vt;thW khwWfwpJ vdgi jAk; tpthpf;fpwJ. , j i d %dW Kffpa NkwNfhs;fSld; mwpayhk;
- 1. rhhGei y: kdj d; vt;thW #oepi yi ar; rhh;Jsshd; (v.fh. j z z h> fhwW)
- 2. xj;JgNghj y: kdj d; vt;thW #oepi yAl d; xj;JgNghfpdwhd; (JUt kwWk; ghi y epyqfsy; thofi f)
- 3. khwwpai kjj y: kdj d; vt;thW #oepi yfi s khwwpai kffpdwhd; v.fh. epyj jbg; Gi f tz bg; ghi j ai kjj y> , j Nuy; ehl bd; tptrhak;

, l gngah;T

- kffs> nghUI fs> fUj;Jffs; Nghdwi t xhpjj py; , UeJ kwNwhh; , ljj pwF , lkngaUk; ti ygddi yNa efh;T vdf; \$WfNwhk; v.fh. fuhk - efu , l gngah;T> nrdi dapYss ngUefu nj hl htz bggaz k> thd; gaz k> Nghf;Ftuj;J , i z a nraj pg; ghpkhwwk; Nghdwd.

tl; huk;

- tl; huk; vdgJ xUkjj j di kAi la xU gFj pahFk; v.fh. fhyepi y (gUtf;fhwW kz;lyqfs) jhtuqfs; (ntggkz;ly ki of;fhLfs) gapfs; (mnkhp;fhtpy; Nrhs; gapLk; gFj p) nj hopwrhi y (ngqf@U - X#h; nj horykz;lyk).

GtapaYf;Fk> , aw; kwWk; r%f mwptpaYf;Fk; c ss nj hl hGfs;

- Gtapaypd; rpy ghpfTs; fz pj k> Rwwr; #oy; mwptpay; NghdwtwWl d; xU typi kahd , i z gi g nfhz;Lssi j Gtapai y ti uaWf;Fk; NghJ fhz Nghk; rpy Gtapay; ghpfTs; tuyhW kwWk; r%ftpaYld; neUq;fpa nj hl hGi lai t. rpy ghq;fs; Fwpgpl;l fUgnghUis kl;LNK nfhz;LssNghJ GtapayhdJ gyNtWgl;l fUgnghUI;fi s xdwhff; nfhz;LssJ.

GtapaYf;Fk; kww ghl qfS f;Fkhd nj hl hGfi sj; nj spthf
t;sf;FfwJ.

thdtpay> fz gj k> fz pdp mwptpay; MfpatwWf;Fk; GtapaYf;Fk;
, i l Na c ss nj hl hG:

- thdtpayhdJ el rj j uq;fs>Nfhs;fs> Ji z f; Nfhs;fs> el rj j u;f;
\$l;k; Nghdwtwmpd; efh;Tfi sAk; t;Z ntspay; VwgLk; gyNtW
epfo;Tfi sAk; mbggi lahff; nfhz ;J. fz gj khdJ> t;Z ; yfg;
nghUl;fspd; j di k> msT> efh;Tfspd; j di k Nghdwtwi w kpfj;
Jyypakhff; fz pff c j Tf;pdwJ. thdtpay> fz gj k> fz pdp
mwptpay; Nghdwtwmpd; xUq;fi z gg etd ti ugltpay; kwWk;
Gtj; jfty; mi kgG Nghdwtwmpw;fhd KdNdwwg; ghi ji a
tFj ;JssJ.

Gtpai kggpaYk; GtpapYk;

- ghi wfs> ghi wfs;pd; ti ffs> mtwmpd; guty;fs; fd;kq;fspd;
msT> ngl;Nuhypak; Nghdwtwi wg; gwwpg; gb;ggJ Gtpai kggpay;
MFk; , ej g; ghl k; mi dj ;J epfo;Tfi sAk; Mae;J mtwi w
ti fggLj ;p thpi rggLj ;J f;pdwJ. Gtpapay; ghl khdJ ghi wfs;pd;
guty> fhyepi y kwWk; kd;gj r; nrayfspd; nj hl hG> fd;kq;fspd;
nghUshj hu kj ;gg Nghdwtwi w t;sf;FfwJ. Gtpapay; kwWk;
Gtpai kggpaYf;F , i l Naahd Ma;Tfs; epyj Nj hwwi j g; gwwpa
gb;gghd Gt;pgGwtpay; vdw Gj pa ghl gg;hpi tj ; Nj hww;T; ;JssJ.

, awgpay> Ntj papay; kwWk; GtapaYf;fpi l Naahd nj hl hG:

- GtapaYhdJ Gtpapay; VwgLk; gyNtW epfo;Tfi s Ma;T nra;f;pwJ.
, jji fa epfo;Tfs; , awgpay; El gq;fspd; fl;i kgGf;F c l gl;Nl
fz ;l w;aggL;f;pdwd. ts;kz ;ly , awgpay> thdtpay;Yk> eh;f;
Nfhs;j ;pd; , awgpay; Nguh;opapay;Yk; mw;pag;g;L;f;pdwd. ghi w> kz >
eh> epyj ;b eh> ts;kz ;lyk; Nghdwi t GtapaYhsh;f;fspd;
t;Uggkhd nghUsl;f;fkhFk;

jhtutpay> t;pyq;f;pay; kwWk; Gtpapay;

- jhtutpay; kwWk; t;pyq;f;pay; ghl gg;h;T;fs; to;f;fkhf Gt;papd; k;U
fhz ggLk; gyNtWgl ;l c a;h;pd;q;fspd; ti ffi sg; gwwp t;sf;F;t;Jk;
ti fggLj ;T;Jk; MFk; GtapaY; Gt;papd; guggpay; rhhej
gb;gghj yhy; fhyepi y kwWk; epyj Nj hwwk; rhhej jhtu t;pyq;f;pd;g;
guty;fi sg; gwwpa gb;gghFk; , ej ghl q;fspd; xUq;fi z gg;py;
c UthdJ ;hd; “c a;h;gGtapaY;” vdw ghl gg;h;T.

GtapaYf;Fk; r%f mwptpaYf;Fk; , i l Naahd nj hl hGfs;

ngUshj huk; kwWk; Gtjapay;

- ngUshj huk; vdgJ kdj djd; Nj i t f S k; tpUggq;fS k; mggFj japy; fpi l f;fpdw tsq;fshy; Ghj j pr; nraag; gLfwJ vdgNj hL nj hl hGi l aJ. ngUshj hu Gtjapay; vdgJ tsq;fspd; mogg kwWk; gadghl bd; ti ffs; gwwpag; gbgghFk; Ntshz i k> kblgpbj j y> tdtjay> nj h o w r h i y f s > t z p f k; kwWk; Nghf;Ftuj; J Nghdwi t , ej ghl g; ghptjy; fw;fggLfpdwd.
- ngUshj hu el tbfj ffs; xU gFj j apd; fhyei y kwWk; epyj Nj hwwj j hy; fl;LgLj j ggLfpdwd. vdNt ngUshj huKk; GtjapaYk> Fwpgghf xUq;fpi z ej tsq;fspd; Nkkghl bw;F> xd;Wl d; xd;W nj hl hGi l a J i w f s h F k;

r%ftjapYk; GtjapaYk;

- r%ftjay; vdgJ r%ff; fl;i kgG mkrq;fs; rhhej J. r%f mZ FK i w f s > fuhk - efuq;fS f f p i l Naahd k f f s p d; , l g n g a h ; T > r % f f ; F O f f S f F , i l Naahd gugG rhh; , i l n r a y f s > f u h k k ; k w W k ; e f u q f s y ; f h z g g L k ; G j i k k w W k ; k u G f S f F , i l Naahd nj hl h G f s ; N g h d w t w i w c y f r y ; c s s r % f t j a y h s h f S k ; G t j a p a y h s h f S k ; x d w h f , i z e j M a ; T N k w n f h s ; f p d w d h ; r % f g ; G t j a p a y p y ; g u g G r h h ; r % f e p f o ; T f i s g ; g b g g j h y ; r % f t j a Y f F k ; G t j a p a Y f F k ; , i l Naahd xU nj hl h G n t s p g g L f w J .

khDI tjaYk; GtjapaYk;

- khDI tjay; kdj , dqfi sAk; mtwwpd; ti ffi sAk; gwwpa gbgghFk; khDI tjaYk; GtjapaYk; kdj , Uggpl k; kwWk; fyhr;rhug; gz Gfspd; mbggi l a y ; kdj , dqfi s f z ; l w p e ; J ti fggLj j Kawrpf;fpdwd. Gtj; guggjy; fhz ggLk; nttNtW , dk; rhhej epfo;Tfi s tpsff Kawrpf;fpdwd. khDI tjaYf;Fk; GtjapaYf;Fk; , i l Na c s s nj hl h g p d ; t p i s t h f k h D I g G t j a p a y ; v d w G j j a g h l g ; g h p T c U t h f j a J .

GtjapaYk; tuyhWk;

- fhyk; kwWk; , l k; rhhej epfo;Tfspd; fl;i kgNg tuyhW. , ej epfo;Tfi sgGtjapayhdJ Gtjapd; , awi f mi kgGl d; xggpl;L tpsf;FfwJ. , J NkYk; j yggl qfi sg; gadgLj j p tuyhwW epfo;Tfspd; j y q f i s f ; f h l L f w J . , e j p a h t p d ; t u y h w W e p f o ; T f i s g b f f K a w r p f ; F k ; x U t h ; m f f h y f l ; l j j p d ; , l k ; k w W k ; f h y k ; r h h e j e p f o ; T f i s x d w p i z j ; J x U K b T f ; F t u N t z l k ;

Gtɔpɔy; fwwYf;fhd mZ FK i wfs;

- Gtɔpɔy; mjd; mZ FK i wɔy; gy khwwqfi sf; fz LssJ. Kj ypy/ Gtɔpɔy hshfs; Gtɔf; \$Wfi s tpt hggthfshf , Uej dh; gpd dh> Gtɔpɔy; xU gFggha;T mwptɔyhf tshej J. , dW Gtɔpɔy; ghlkhdJ xU nghUi s tpt hggNj hL kl Lkyyhky; gFggha;T kwWk; fz pffp d w xU ghlkhfTk; c ssJ. Gtɔpɔi yf; fwf , U Ki wfs; c ssd. mi t.

1. Ki wggLj j ggl i mZ FK i w (Systematic Approach)

2. tli hu mZ FK i w (Regional Approach)

Ki wggLj j ggl i mZ FK i w:

- Ki wggLj j ggl i mZ FK i w Gtɔpɔy; mwptɔh mnyfrhz ;lh; thd; ` kNghy;l; (1769 – 1859) vdg tuhy; mwptK fggLj j ggl i J. mwptK fggLj j ggl i J. , ej mZ F Ki wɔy; xU Fwpggl i epfo;T tpt hhd Ghj Yf;fhf vLj Jf; nfhs sggLfwJ. gugG rhh; khj ptp kwWk; fl i kgi g Gtɔpɔd; kU c Uthf;Fk; , awi f myyJ nrawi f epfo;Tfi sg; gwwpa gbg i g Ki wggLj j ggl i mZ FK i w vdf;Nwhk; nghJ thf; Ki wggLj j ggl i mZ F Ki w ehd;F Kffp ag; ghpTfshf ti fggLj j ggl Lssd.

1. , awGtɔpɔy; (Physical Geography): tsɔkz ;lyk> ehpay> ghi wfNfhs k> c ap;fNfhs k; kwWk mtwwpd; guty; gwwpa gbgG.

2. c ap;Gtɔpɔy; (Biogeography): (RwWrRoy; Gtɔpɔy; c lgl) fhLfs> Gyntspfs> jhtu tpyqf pdg; guty> kdj d; - , awi f nj hl hGfs> c ap;dr; #othopl j j pd; j di k kwWk; kdj eydkU mjd; j hffqfs; Nghdwtwi w tpt hggJ.

3. khdp l g; Gtɔpɔy; (Human Geography): kdj f; fyhrrhuk> kffs; nj hi f> r%fg; nghUshj hu kwWk; murpɔy; mkrqfi s tpt hpf;fwJ.

4. Gtɔpɔy; Ki wfs; kwWk; EZ f;fqfs; (Geographical Methods and Techniques): fsggaz k> j uk; kwWk; epyti ugl gFggha;Tf;fhd Ki wfs; kwWk; EZ f;fqfs; rhhej J.

tli hu mZ FK i w:

- , ej mZ FK i w fhhy; hpl ;lh; (1779 – 1859) vdg tuhy; mwptK fggLj j ggl i J. , th; ` kNghy;l; thoej fhyj j py; thoej th; epyj Nj hwwk> ki o> jhtuk> j dp egh; tUkhdk; Nghd w Vj htJ xU

fhuz papd; mbggi laNyh myyJ , uz LfF Nkwgl; fhuz pfspd;
mbggi laNyh epyggugGfs; ti fggLj jggLfpdwd. khepyk>
khtl;k> jhYf;fh Nghdw ehtthf myFfSk; epyggugGfshf
vLj;Jf; nfhs;sggLfpdwd. tli;hug; Gtapa;ypd; ghpTfshtd.

Ø tli;hu Ma;Tfs;

Ø tli;hug; gFggha;T

Ø tli;hu tshrrp

Ø tli;huj; jpl;kpl;y;

Gtapa;ypd; jfty; ti urrl;k; (Geographical Data Matrix):

- rpf;fyhd gugG rhh; gpurri dfi sr; rpwgghfg; Ghp;Jnfhs
Gssptptuj; jfty;fi s thpi r kwWk; gjj pa;ypd; mLffp
i tj;Jf;fh;Lk; vsa Ki wf;F ti urrl;k; vdgngah; ghpad;
N[.vy; ngghp (Brian J.I. Berry) vdgth; Gtapa;ypd; kpfj; jpwkgl
gbggj w;F , ej Ki wi a khDltpa;ypd;Ue;J vLj;Jnfhz;lhh;
Gtapa;ypd; jfty;fi s ti ur; rli;jj;py; mLffp i tffyhk; Gtapa;ypd;
ghpTfs; thpi ra;ypd; fh;l;ggLfpdwd. tli;hu epyggugGfs; gjj pa;ypd;
fh;l;ggLfpdwd. rhpahd fhy thpi ra;ypd; mi ke;Jss Gtapa;ypd;
ti ur; rli;jnjhlhp;dj; cjtAl;d; tli;hur; nj hFgGfs; ngwggLfpdwd
vd ngghp tpsf;fpapUff;pw;hh; xtntH U fhy msTk; xU Kggghk;hz f;
Nff;Fj; Jzbd; msTf;F rkkhf , Uff;Fk; thpi rfi sAk;
gj; j pfi sAk; ghpNrhj;pggi j %dwhtJ ghpkhz k; rhj; j pakhf;FfwJ.

1769 Mk; Mz;L nrgl;kgh; 14y; gw;ej mnyfrhz;l;h; thd; `kNghy;l;
xU gy;Ji w ty;Ydh> Gtapa;ypd;hsh> , awi fa;pa;ypd;hsh; kwWk; Ma;Tg;
gaz k; nragth; `kNghy;bd; jhtug; Gtapa;ypd; kjhd Ma;thd;J
Gtapa;ypd;Yf;F xU mbggi lahf mi ke;J. , th; fh]kh]; (cosmos)
vdw gz;ila f;Nuff nrhy;ypd; gadghl;bw;Fg; Gj;Japh; ms;j;jhh;
, tuJ gynj hFj; p Ma;Tf; fl;Li uf;F fh]Nkh]; (Kasmos) vdg;
ngahp;l;hh; kd;ji dhy; Jz;l;gg;l; fhy epi y khw;wj; j 1800 y; Kj;d;
Kj;yp; vLj;Ji ujj;th; , th;hd; , th; FtNd;hNfh M]ghy;l; Vhpi a
'eyy kj FUtpd; eUw;W" vd t;pth;j;jhh; `kNghy;l;Lk; Nghz gy;hd;l;Lk;
(Bonpland) kd;ji df; nfhy;yf; \$ba kpd; mj;thrrp j Uk; tpyq;F
kl;df; fz;Lg;bj;jdh; vfp;tl;hh;py; j q;f;pa;ypd;Ue;J NghJ gpr;rd;rrh kwWk;
rpk;Nghurh rpfuq;f;sp;py; 5>878 kl;l;h; cauk; ti u Vwpr;nr;dw;J
Fwpggpl;jj;ff;J. , J mej fhyfl;jj;py; cyf rh;ji dahf , Ue;J J.
mnkhp;f;f mj;pg;h; n[ghrd; `kNghy;l;i l "kpf;rr;pw;ej t;P;Qhd kd;ji h;"
vd Gfoe;Jss;hh;

Gt̄p̄ap̄aȳpd; ḡh̄p̄T̄fs;

- c s s l f f k; k w W k; E Z f f q f s p d; m b g g i l a p y; G t̄p̄a p̄a i y % d W n g U k; ḡh̄p̄T̄f s h f g; ḡh̄p̄f̄f̄y h k; , i t g y N t W F w p g g p l ; N e h f f q f S l d; g y c l ḡh̄p̄T̄f s h f N k Y k; t i f g g L j j g g l L s s d.

1. Gt̄p̄g; G w t̄p̄ay; (Geomorphology):

e p y j N j h w w j j p d; g u t y > N j h w w k; k w W k; m t w w p d; N j h w w j i j k h w w p a i k f F k; f h u z p f s; N g h d w t w i w t p s f F t J G t̄p̄g; G w t̄p̄a y h F k; G t̄p̄g G w t̄p̄a Y f f h d m b g g i l j; j f t y f i s G t̄p̄a i k g g p a y; t o q F f p w J.

2. k z ; G t̄p̄ap̄ay; (Soil Geogprahy):

k z ; c U t h f F j y > k z z p d; t i f f s > k z z p d; F W f F n t l L j ; N j h w w k; k w W k; g u t y > k z ; m h p g G k w W k; k z ; g h J f h g G N g h d w t w i w , g g h p t p d; f b; f w f y h k;

3. f h y e p i y a p a y; (Cliamatology)

j f t y f s p d; m b g g i l a p y h d c y f s h t p a k w W k; t l i h u f h y e p i y i a t p s f F f w J. t h d p i y a p a y; (Meteorology) t s k z l y j j p d; f y i t > m L f f i k g G k w W k; k h w w q f s; F w j j t p t u q f i s t o q F f p d w J.

Gt̄p̄ap̄aȳpd; ḡh̄p̄T̄fs;

, a w G t̄p̄a p̄a y;	G t̄p̄g; G w t̄p̄ay; k z ; G t̄p̄a p̄ay; f h y e p i y a p a y; e h p a y; N g u h o p a p a y; c a p h; G t̄p̄a p̄ay; R w W r # o y; G t̄p̄a p̄ay;
k h d p l g G t̄p̄a p̄ay;	t u y h w W g; G t̄p̄a p̄ay; k h d p l t p a y; G t̄p̄a p̄ay; f y h r r h u g; G t̄p̄a p̄ay; r % f g; G t̄p̄a p̄ay; k f f l; n j h i f g; G t̄p̄a p̄ay; F b a p U g G g; G t̄p̄a p̄ay; m u r p a y; G t̄p̄a p̄ay; n g h U s h j h u g; G t̄p̄a p̄ay; k U j ; J t g; G t̄p̄a p̄ay;
G t̄p̄a p̄ay; E Z f f q f s;	f z p j g; G t̄p̄a p̄ay; G s s p a p a y; G t̄p̄a p̄ay; e p y t i u g l t p a y; n j h i y E z ; Z z h ; T G t̄p̄j j f t y; m i k g G c y f s h t p a C L U T k; n r a w i f f; N f h s;

4. **ehpay;** (Hydrology):

Nguhopfs> MWfs; kwWk; eh; epi yfi s c s; l f fpa eh; fNfhsj j pd; j di k> mi kgG kwWk; , twwp; VwgLk; khWj yfs; gwwp tpsf; FtJ ehpayhFk; NkYk; , j d; %yk; epyj j b eh> eh; tsk; GJggj j y; kwWk; eh; khWgLj y; Fwj ; J k; mwpayhk;

5. **Nguhopapay;** (Oceanography)

, J Nguhopi ag; gwwpag; gbgghFk; NkYk; , J Nguhopfs; pd; tbt k; msT> Mok> guty> fl yb epyj Nj hwwqfs> fl y; eNuhl ; qfs; kwWk; fl y; tho; c ahp dqfs; Fwj ; J tpt hpf; fpwJ.

6. **c ah; Gt apay;** (Biogeography):

, J Gt apd; Nkwguggpy; fhz ggLk; #o; nj hFj pfs; (Ecosystem) Fwj ; J fwj hFk; NkYk; #o; nj hFj pay; VwgLk; khwwqfi s , J tpsf; FfpwJ. j htug; Gt apay; (Phytogeography)> tpyq; Fg; Gt apay; (Zoo Geography) Nghdwi t , j d; c l ghp TfshFk;

7. **RwWr; #oy; Gt apay;** (Environmental Geography):

, J epyk> eh> fhwW Mfp at wwpd; rloptidhy> RwWr; #oYf; F VwgLk; ghj pgGfi sg; gwwpa gbgghFk; , J XNrhd; gl yr; rpi j T> cyf ntggkakhj y> J Utg; gdp c UFj y> fl y; eh; kl ; k; c ahj y; Mfp ad Fwj ; J k; tpsf; FfpwJ. , J RwWr; #oy; nj hl hghd gurri dfS f; F epej u j h; T fhz Tk; KwgLfpwJ.

khdp l g; Gt apay; (Human Geography):

• , J , awi f kwWk; epyj Nj hwwqfs; py; kdij hfshy; VwgLk; khwwqfs; Fwj j gbgghFk; fhyp; y> vhpki yfs> ntss; gngUf; F. #wh; tpsf; Nghdwi rthy; fi s kdij , dk; vj p; nfhst; J Fwj ; J k; mwpaggLfpwJ. , j py; nkhop kwWk; murpay; rhhej epfo; TfS k; fUj j py; nfhs; sggLfpdwd.

1. **kf; fl nj hi fg; Gt apay;** (Population Geography)

, J kf; fl; guty; Fwj j gbgghFk; khWgLk; taJ kwWk; Mz > ngz ; tpfj hrrhuk> gpwgG> , wgG tpfj qfs> MAI; fhyk> fy; tpa; wT> rhhG epi y tpfj k> ehL kwWk; cyf mst; yhd Gyk; ngahj Yffhd fhuz qfs; kwWk; tpi s Tf; sf; Fwj ; J vLj ; Ji uff; fpwJ.

2. **FbapUgGg; Gt apay;** (Settlement Geography):

, J fuhkpa kwWk; efhgGwf; FbapUgGfs; pd; j di k kwWk; Nghf; Ftuj ; J ti yggp; d; dy; (Network) Fwj j gbgghFk; , j d; KOi kahd gbgghdJ j w; fhy FbapUgGfs; pd; guti yg; Ghpe; J nfhz ; L vj p; fhj j j pw; fhd j pl ; l qfi s tFggj hFk; NkYk; fuhk kwWk; efui kgG j pl ; l qfS f; F , t; twpt; pay; kpfTk; Nj i tahdJ.

Gt̄p̄p̄ay; EZ f̄f̄q̄f̄s; (Geographic Techniques):

- Gt̄p̄p̄ay; gugG rhh; fl̄l̄i kgG kw̄Wk; tbt̄j̄j Muhae;J fz̄l̄wpa gy Ki wfi sAk; fUtp̄fi sAk; cUthf̄f̄p̄AssJ. NkYk; mi kt̄pl̄q̄fi sAk; tbt̄j̄jAk; mse;J Ma;T nra;J rhp̄ahf Ghpe;Jnfhs̄s , J r̄pȳ top̄Ki wfi sAk; fUtp̄fi sAk; j Uf̄pw̄J myyJ ngWf̄pw̄J.

1. fz̄l̄j̄g; Gt̄p̄p̄ay;

, t̄t̄w̄p̄t̄p̄ay; %yk; Gt̄p̄p̄d; msT> c Utk> , aff̄q̄f̄s> Neu; kw̄Wk; Neu kz̄l̄yq̄f̄s; Kj̄ȳpat̄wi w mw̄pe;J nfhs̄syhk;

2. Gss̄p̄p̄ay; Gt̄p̄p̄ay;

, J k̄ff̄s; nj̄hi ff; fz̄fn̄f̄LgG Nghdw Gt̄p̄p̄ay; ghp̄khz̄q̄fi s̄f; nf̄hz̄l̄ Gss̄p̄t̄p̄tuq̄fi sr; Nr̄fh̄j̄; J> gF̄j̄j̄hae;J t̄ps̄f̄F̄f̄pw̄J.

3. epȳti ugl̄t̄p̄ay; (Cartography):

epȳti ugl̄t̄p̄ay; vdḡJ mj̄p̄fh̄ugGh̄t̄ j̄ftȳf̄sp̄d; mbḡgi l̄ay; ntt̄Nt̄W msi t̄fs̄py; epȳti ugl̄q̄fi s̄ cUthf̄F̄k; fi yahF̄k; xU t̄Utha; f̄p̄hk̄j̄j̄py; c̄ss̄ mi dj̄J̄j̄; j̄ȳ epȳti ugl̄q̄fi s̄ , i z̄j̄J̄ xU t̄Utha; f̄p̄hk̄j̄j̄p̄d; epȳti ugl̄k; cUthf̄f̄ggL̄f̄pw̄J. ḡp̄d̄dh; xU t̄Uthaf; Nf̄hl̄l̄j̄j̄p̄Yss̄ t̄Utha; f̄p̄hk̄q̄f̄sp̄d; epȳti ugl̄q̄fi s̄ nj̄hF̄j̄J̄ Nf̄hl̄l̄ epȳti ugl̄q̄f̄s; cUthf̄f̄ggL̄f̄p̄d̄wd. Nf̄hl̄l̄ epȳti ugl̄q̄fi s̄ , i z̄j̄J̄ k̄ht̄l̄l̄ epȳti ugl̄q̄f̄s> k̄ht̄l̄l̄ epȳti ugl̄q̄fi s̄ , i z̄j̄J̄ k̄hepȳ epȳti ugl̄k; cUthf̄f̄ggL̄f̄p̄d̄wd. k̄hepȳq̄f̄sp̄d; epȳti ugl̄q̄fi s̄ , i z̄j̄J̄ xU ehl̄bd; epȳti ugl̄k; cUthf̄f̄ggL̄f̄p̄dw̄J.

4. nj̄hi ȳ Ez̄;Z̄z̄h̄T̄ (Remote sensing): nj̄hi ȳ Ez̄;Z̄z̄h̄T̄

Gt̄p̄p̄d; Nkw̄gugḡpy; fhz̄ggL̄k; j̄ftȳf̄i s̄ thD̄}h̄j̄p̄ kw̄Wk; nrawi f̄ Nf̄hs̄f̄sp̄y; nghUj̄j̄ggl̄L̄ss̄ cz̄h̄t̄p̄f̄s; %yk; j̄p̄l̄b̄ gF̄gḡha;T nra;J gugG rhh; j̄ftȳf̄i s̄ ek̄f̄F̄ ms̄p̄f̄f̄pw̄J.

5. Gt̄j̄j̄fty; mi kgG (Geographical Information System – GIS):

, J Gt̄p̄p̄ay; gbgGf̄fh̄f̄ mz̄i k̄apy; cUthf̄f̄gḡl̄l̄ fz̄p̄dp̄ mbḡgi l̄aȳhd̄ Xh; c̄j̄j̄p̄ahF̄k; , J j̄ftȳf̄i s̄ Nr̄fh̄p̄f̄f̄Tk> Ma;T nraaTk> ghp̄k̄hwTk> nt̄sp̄apl̄Tk; kw̄Wk; Gj̄p̄a f̄Uj̄J̄rhh; epȳti ugl̄q̄fi s̄ (Thematic Maps) cUthf̄f̄Tk; gad̄ḡL̄f̄pw̄J.

6. cȳfs̄ht̄p̄a CL̄Uty; nrawi f̄f̄Nf̄hs; mi kgG

, J cȳf̄py; c̄ss̄ vej̄ xU , l̄j̄j̄j̄Ak; k̄p̄f̄j̄; J̄ȳyp̄akh̄f̄ F̄w̄p̄gḡpl̄L̄r; Rl̄b̄f̄f̄hl̄l̄ c̄j̄Tk; mi kḡghF̄k; thD̄}h̄j̄p̄f̄s> f̄gḡȳf̄s> epȳtop̄ th̄fd̄q̄f̄s; Nghdw̄i t̄ nrȳYk; top̄f̄s; mt̄w̄w̄p̄d; j̄w̄Nghīj̄a , Ugḡpl̄k; Nghdw̄twi w mw̄pe;J nfhs̄s , J

nghpJk; cj TfpdwJ. thfd xlbfs fF Neh;topfi sf; fhliTk; J}uk; kwWk; gaz Neuk; mwpaTk; , J cj TfpwJ.

cyfshtpa CLUty; nrawi ffNfhs; mi kgG (GNSS) , rnrhy; cyfshtpa kwWk; Fwggpl;l epyggugi g fz fhz pfff; \$ba CLUTk; nrawi ffNfhs; mi kgi g Fwggj hFk; , J cyf mi ktpl qfs; fz;lwpAk; nj hFj pfs; (GPS- mnkhpff l f;fpa ehLfs) GLONASS (u~ah) fyypNah (l Nuhggh)> gnliht; (Beidou)> l Mhvdv] v]; (RNSS - , ej pah) Nghdwtwi w csslffpaj hFk; cyf mi ktpl qfs; fz;lwpAk; nj hFj pfs; mi kgG (GPS) mnkhpff;fhfshy; Vwglj j ggl;l Kj y; cyfshtpa CLUty; nrawi ffNfhs; mi kgG (GNSS) MFk; , j i d mthfs; mi kgghdJ (GPS) mi yNgrpfs> Chj pfs> tptrhak; NghdwtwmpYk; epyti ugl k; j ahhj j ypYk; gadgLfpwJ.

Gtppay; fUtpfS k> j pwd;fS k;

- xtnthU ehSk; Clfqfs> cyfpd; gyNtW gFj pfs;py; epfOk; Gtppay; Kffpaj;Jtk; thaej nraj pfi s ntspalFpdwd. mi t epy mj ph;T> ntssgngUfF. fhliLj j p epyrrhpT Nghdwi tahFk; , eepfo;Tfs; xtnthUth; kdj pYk; VwfdNt mthfs; ngwmpUej Gtppay; mwpi t epi dTfFf; nfhz LtUfpdwd.
- epyti ugl qfs> Gtpkhj thp thd; xsggl qfs; (Arial Photos) nrawi ff; Nfhs; gj pkqfs; (Satellite Images) Gtpj; j fty; mi kgG kwWk; cyfshtpa CLUTk; nrawi f Nfhs; mi kgG Mfpatwi w Gtppaypd; , dwpai kahj fUtpfs; vdyhk; , tti ff; fUtpfs; cyfg; guty; ti ffi s , dqfhz f; \$ba Gtppaypd; xUqfpi z ej gFj pahf tpsq;FfpwJ.
- cyf mi ktpl qfs; fz;lwpAk; nj hFj pfs;pd; EZ ffqfs; epyti u gl qfi s , yffKi w mLf;Ffi s Nkyt;thj j y; Ki w %yk; mLf;fp xggL nraJ tpi uthfTk; j pwi kahfTk; cUthf;Fk; j pwd;fi s NkkgLj j p cSSJ. ntssk> #wh;tsp fhliLj j p Nghdwtwwhy; ghj pffgg;l epyggFj pfi sAK> ghj pgG kj pggpl i yAk; kpf; Fi wej fhj j py; fz f;fpl , kKi w cj TfpdwJ. CLUTk; nrawi fNfshdJ , tti f ghj pgGfs; Vwgl;l gFj pfi s Jyypakhff; fhz cj TfpdwJ.
- Gtppay; mz i kffhyqfs;py; khz thfS ffhd rei j ggLj j f; \$ba j pwd;fi s cUthf;Fti j Na Fwfnfshff; nfhz LssJ. Nti yi a rei j ggLj j j i y i kaggLj j p mj d; fUgnghUi s mbf;fb khwWk; j di kAi laJ. mj dhy; GtppayhdJ j d;Di la fwgj j y; newpKi wi a khwptUK; r%fj j pd; Nghf;FfS fNfwg khwmpai kff Ntz bAssJ. NKYk; khz hf;fhi l Na , uz l

j dñj j pvd;fi s c Uthf;fp c yfg; gz pr; rei j ay; Nti y
thagi gg; ngw c j Tf;pdwJ.

epyti uggl tpay; (Cartography):

- , j;Ji wapy; j dñj j pvd; ngww Gtpapayhshfs> kuGrhh;
epyti ugl qfs> , yffKi w epyti u gl qfs> epyti ugl Gj jfk;
(Atlas) tpsffgggl qfs; (Chart) Nghdwtwi w c Uthf;Ff;pdwdh;
Gtpapay; ehz aj jpd; , U gf;fqfshf epyti ugl tpei yAk>
msthf;Fji yAk; (Quantification) \$wyhk; fz pdg; Gul r;pahYk>
msi tfshYk; , lk; rhhej (Spatial) j ftyfi s i fahst;J>
epyti ugl qfs; c lNd j ahh; nraj y; kl;lkyyhJ Gssptptu
ti ugl qfs> ti ugl g; gj pkk; (Graphic Images) kwWk; c Utggj pkk;
Nghdwtwi wr; nrat;J vsñj hf;pwJ. fz pdp c j tp epyti ugl qfs;
j ahhggJk; j wNghJ vsñj hf , Uff;pdwJ. epyti ugl tpay;py;
fz pd;pad; tuthy; Kgg;pkhz c Utg; gbkqfi s c Uthf;Fj Yk>
ghhi tf; Nfhz qfi s khwWj Yk> gbkqfi s epWTj Yk; vsñj py;
epfof; \$baj hapwW.

epyg; gadghL , ay;

- ntssngngUf;F> twlrp; fhLlj;P Nghdwtwwhy; VwgLk; mj pf
khwwqfi s njhi y Ez;Z z h;Tj; j ftyfs; %yk; nj spthf
mwpayhk; Gtpapayhshfs; , jji fa khwwqfi s Muhat;tpy; j pvd;
ngwwthfshth; , j dhy; njhi y Ez;Z z h;Tj; j ftyfi s
gadgLj;Jk; epWtdqfs; , sepi y kwWk; KJepi y Gtpapay;
gl;l;hhpfi s gz papy; mkhj;Jf;pdwd. nrawi ffNfhs; top
Ez;Z z h;Tj; j ftyf;Sf;F KddNu thd;top xsggl qfs>
, awi ftsf; fz fnfLgG> efhGw kwWk; tli;huj; j pl;l;kl Yffhd
Gssptptuqfs; gutyh;f Gtpapayhshfshy; gadgLj;ggL tej d.
gyNtW nrawi ffNfhs;fs; Fwpggl;l , i lntspfs;py; j Uk;
j ftyfs; Gtpapd; vej xU gFj pi aAk; Muha c j Tf;pdwJ.

, lk; rhhej gFggha;Tg; Gtpapay; (Geo Spati al Analysis):

- j fty; nj hFgG> Gtprhh; j fty; Ma;Tfs> nghUj;jkhd c yf
mi ktpl qfs; fz;lwpAk; nj hFj pfs> nkdnghUs; Nghdwi tfi s
Gtpapay; , lk; rhh; gFggha;T Mathsh; tbtikf;fpdwhh; , J
, uhZ tk> ki d thj jfk; (Real Estate), khri l; y; kwWk; muR
ep;thfk; Nghdw Ji wfs;py; ngUkst;py; gadgLf;pwJ. , ej j; j pvd;
kUj;Jtki d> fhty; epi yak> ji yi kapl qfs; Nghdwtwwpd; Gj pa
nghUj;jkhd mi ktpl;j;jAk> VwfdNt c ss mi ktpl qfs;py;
khwwk; VwgLj;jTk; c j Tf;pdwJ.

RwWr#oy; j hf;fg; gFgghs;T:

- RwWr#oy; j hf;f gFggha;Tf;F , awi f> r%f> nghUshj hu gssp tptuqfs; kpf mjp f mstpy; Nji tggLfpdwd. , jji fa Gssp tptuqfs; epyti ugl qfs> nrawi ffNfhs; jftyfs> fs MaT kwWk; RwWr#oy; Matfqs;ypUe;J ngwggLfpdwd. , gGssp tptuqfi s xUq;fpi z j;J fhl rpggLj j f;\$ba KbTfs; vLf;fggLfpdwd. mjji fa gy ghfqi sf; nfhz;l fUgnghUS; KbTfs; j pdrhp kwWk; eZ;l fhy RwWr; #oy; gurri dFS f;F j h;T fhz cj Tfpdwd.

t l ; huj ; j pl ; kpl y;

- xu efu myyJ t l ; hu tshrrpj ; j pl ; ty;Ydhfs; j pl ; kpl g; NghFk; gFjp Fwjj ;J xl;Lnkhjjj ; jftyfi s mwpej tuh f , Ujj y; Ntz ;Lk; j pl ; kpl ypd; NghJ gyNtWgl ; rpf;fy;fS f;F nrayhfff; \$ba epi yahd MNyhri d kwWk; j pl ; tbtqfi s cUthf;FgtuhfTk; , Ujj y; Ntz ;Lk; t l ; huj ; j pl ; kpl yhdJ> , yyk; mi kjj y> etd efu Nkkghl ;Lj ; j pl ; k; NghdwtwWl d; njhl hGi l aJ. gyNtWgl ; Nji tfS ffhd c ddj , l i kaqfi s , dqfhZ k; t l ; hu epyggadghL epyti u gl qfi s cUthffTk; , J gadgLfwJ.

thdpi y KddwptpgG / eptotwptpgG (Weather Forecasting / Now Casting):

- jwNghJ> fs kwWk; nrawi ff; Nfhs; jftyfi sf; nfhz;l thdpi y Mathshfs; fhwwpd; jpi r> ki offhd thagGfs> #whatsapp; eht;T Nghdwtwi w KddwptpgG nrafpdwdh; Mdhy; Nkkgl;jggli nrawi ffNfhs; jftyfs; kwWk; Gtpj; jfty; mi kgGj; njhopy; Elgk; Nghdwtwwhy; thdpi y khwwqfi sAK; #whatsapp; gaz k; ghi jfi sAK; c l Df;F l d; mwptp;f , ay;fwJ. , JNt thdpi y eptotwpgG vdgglfwJ. Gtpayhshfs; gug rhh; kwWk; gugG rhuh jftyfi sg; gadgLjjp thdpi y kwWk; fhyepi y KddwptpgG Nghdwtwi w Nkwnfhz;l Gtpay; mkkhwwqfs;pd; j hf;fqfi sAK; Kddwptp;f;fpdwdh; kwWk; eptotwptp;f;fpdwdh;

nghta msT epyti ugl qfi s msit nra;J gadgLj;Jj y;

- rq;f;yp mstpay; Kj y; cyfshtpa mi ktpl qfs; fz;l wpAk; njhFj pfs; mi kgG (GSP), cyf mi ktpl qfs; fz;l wpAk; njhFj pfs; mi kgG (DGPS) ti uapyhd fUtpfs; Gtpay; ghj; j pl ; j j pd; xUq;fpi z ej mq;f;q;fshFk; khz hf;fhfs; j qfs; fy;Y}hpapYss gyNtW fl;blqfi s mse;J ti ugl qfi s cUthf;Ffpdwdh; NkYk; Nkkgl;l mstll;L; fUtpfs; nfhz;l j qfs; tshfqfi s mse;J nghta msit ti ugl qfi s

cUthf;Ffjpdwdh; NkYk; tUthaj; Ji wapdh; gadgLj;Jk; epy
msTg; Gj j f j j pd; gadfs; Fwjj gapwrrAk; ngWfjpdwdh;
, j j i fa Gtjpay; mwpTk> nghpa msi t epyggf qfspd;
fUj;J ffi s ntsrnfzhz Uk; j pwi dAk; ngWfjpdwdh;

- epy CLUty; Nulhh; xU tshe;J tUk; epy msi tf; fUtpahFk;
, J Gtp mwpTpay; Ji wfsy; kl Lkpdwp nj hyngHUs; Ma;T> Fbrhh;
nghwppay> efuj; j pl i kpl y; Nghdwtwppy; Kffjag; gq;F
tffj;fjpdwJ. msi tapaypy; j dj j pwc; ngww , tti fg;
Gtjpayhshfs; j dpahh; msi tj; Ji wfsy; Nti y thagGfi sg;
ngWfjpdwdh;

j kpo; ehl by; Gtjpay; fy;tj

- j kpfj j py; c ss fy;Y}hp kwWk; gyfi yf; fofqfspy; Gtjpaypy;
, sqfi y kwWk; KJfi y gbgGfi s neLqfhykhf toqfp
tUfjpdwd. , twppy; rpy Ji wfs; Nj rpa kwWk; rhtNj r Ma;Tj;
j pl i ti ui t Nkwnfhs;fjpdwd. , j;Ji wfs; FWfpa kwWk;
elz i fhyg; gapwrrfs; kwWk; gz pki dfi s elj j p rkbj j pa
Gtjpay; mwpT kwWk; nj hopy;El gj j khz hf;fUf;Fk> Ma;T
Nkwnfhs;gth;fS f;Fk; kwWk; MrhpahfS f;Fk; gadgLk; ti fay;
fwggj j tUfjpdwd.

Gtjpai y fwggj j y; kwWk; fwwYf;fhd Gsspttuqfs;

- Nghpl h> Rwwr#oy; rpf;fy> , awi f tsk; kwWk; cyfshtpa kwWk;
cs;@h; , ddyfs; gwwp Gtjpayhsh; fti y nfzh Lssdh;
ngUkghYk; , tti f , ddyfi sg; gwwp tFggi wfFs;
tptjh pffggLfjpdwd. , tti fahd , l hghLfi s Ghpe;Jnfhs;tj w;Fk;
mtwppw;F eyy KbTfs; fhz gj wFk; mi t nj hl hghd
Gsspttuqfs; ngUksT Nji tggLfjpdwd. , tti fahd kj pgG
kpf;f j fty;fi s rpwgG ntspaLfs; %yk; rKj haj j pw;F nfzh L
nry;tj py; , ej pahtpy; gy epWtdqfs; <Lgl L tUfjpdwd. gsspfs>
fy;Y}hpfs> gyfi yffofqfs; kwWk; Ma;T epWtdqfs; Nghdwi t
, J Nghdw epWtdqfs;py; gj pT nra;J vOj p mDggp rpwNwLfs>
Jz Lg; gpuRuqfs> nrawi ffNfhs; gbkqfs> i fNaLfs;
Nghdwtwi wg; ngwKbAk; , ej epWtdqfs; elj ;Jk; FWfpa fhy
gapwrrfs> fsggaz k> gz pki dfs; Nghdwtwppy; gqnfLf;fg; gj pT
nra;J nfhs;syhk;

