



ՀՀ կրթության և գիտության նախարարություն

**Իրավաբանական ֆակուլտետի ֆակուլտետի 2005 թ.**

**Երևան**

**Իրավաբանական ֆակուլտետի ֆակուլտետի 2005 թ.**

**Իրավաբանական ֆակուլտետի ֆակուլտետի 2005 թ.**  
**նախագիտություն**



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# fl pkbZ foHkx] mÜkj k[k.M

## ifjp; &

LorU=rk i kflr ds i "pkr gekjs n'sk ds urkvka }kjk fl pkbZ , oa Å tkZ ds nkgu ds fy; s ufn; ka ij ty fo|q ifj; kstuk; a cukus ij vko"; drk egl u dh x; h , oa n'sk ea cgr l kjh cgmnn'skh; ifj; kstukvka dk ifjdYi u fd; k x; kA LorU= Hkkjr ds i Fke izkkuea-h i MR tokgj yky ug; us fnukad 23 fl rEcj 1949 dks ngjknw l s 46 fd0 eh0 nj MkdiRFkj ea ; epk ?kkVh ty fo|q ifj; kstuk pj.k&i Fke dk f"kyk; kl fd; kA Jh txnh" k ukjk; .k ifj; kstuk ds dk; kZ ds l Ei knu ds fy; s inLFkfi r fd; s tkus okys i Fke vf/k"kk l h vfHk; Urk Fks tks ckn ea eq; vfHk; Urk 1/2 kexack ifj; kstuk 1/2 ds in l s l ok fuoRr gqA

/ku ds vHko ea ifj; kstuk dN l e; ds fy, cln dj nh x; h , oa o'kz 1956 ea ifj; kstuk ij i p% dk; Z i k jEHk fd; k x; k ij Urq o'kz 1958 ea i p% dk; Z cln dj fn; s x; s D; kAd i atk jkT; }kjk ; epk unh ij dlop ckak ifj; kstuk rktokyk gM oDI Z ds viLVhe ea i Lrkfor dh x; h Fkh] ft l l s ; epk ?kkVh ty fo|q ifj; kstuk pj.k&i Fke ds Mnc tkus dk [krjk cu x; k FkA ij Urq fl pkbZ foHkx ds vfHk; Urkvka }kjk l o'k.k dk; Z tkjh j [kk x; k rFk fl pkbZ foHkx ds vfHk; Urk bl fu'd'kz ij igps fd [kjc Geological Conditions ds dkj.k dlop ck/k ifj; kstuk dk fuelZk l Hko ugha gA bl ds ckn o'kz 1960 ea ; epk l xBu LFkfi r fd; k x; k] ft l ea Jh , uO l hO l DI S[k] v/kh{k.k vfHk; Urk , oa Jh vkj0 vkbD fl g] vf/k"kk l h vfHk; Urk inLFkfi r fd; s x; A bl ds ckn ; epk ?kkVh ty fo|q ifj; kstuk pj.k&i Fke dk fuelZk dk; Z o'kz 1961 ea "kq gqk , oa 5 o'kz dh fjdkMZ vof/k ea o'kz 1966 ea i wZ gqkA o'kz 1962 ea ine Jh , l 0 d0 t S] ; epk ?kkVh ifj; kstuk ds igyseq; vfHk; Urk cuk; s x; s , oa o'kz 1966 rd dk; Z r jgA

; epk ?kkVh ty fo|q ifj; kstuk pj.k&i Fke ds l Qy fdz kUo; u ds i "pkr vU; pj.kka ij dk; Z fd; k , oa xack ?kkVh ea Hkh eugh Hkyh ty fo|q ifj; kstuk pj.k&i Fke dk fuelZk fd; k x; k] ft l l s o'kz 1984 ea fo|q mRi knu i k jEHk gq/kA xack& epk ?kkVh ea foHkUu ifj; kstukvka ds fuelZk dks n[ krs gq vDVncj 1981 ea eq; vfHk; Urk Lrj&1 1/2 cgmnn'skh; ty fo|q ifj; kstuk 1/2 ds in ij Jh Mh0 vkj0 fl akk dks inLFkfi r fd; k x; kA 9 uoEcj 2000 dks mYjk[k.M jkT; ds xBu ds i "pkr eq; vfHk; Urk Lrj&1 in dks eq; vfHk; Urk , oa foHkxk/; {k} mYjk[k.M fl pkbZ foHkx ds in ea ifjofrZ fd; k x; kA

**foHkxk/; {k Lrj dk; ky; dk Lo: i**

- e[; vfHk; Urk , oafoHkxk/; {k
- ofj'B LVkQ vf/kdkjh@v/kh{k.k vfHk; Urk ½eØv0fo0½
- v/kh{k.k vfHk; Urk@vf/k"kkI h vfHk; Urk ¼ Ec) ¼ e[; vfHk; Urk , oafoHkxk/; {k
- o\$ fDr d I gk; d
- vk"kyfi d
- i'kkI fud vf/kdkjh Lrj&1
- I x.kd
- i k: i dkj
- e[; I gk; d
- i Øj I gk; d
- dfu'B I gk; d
- vuØ Ød
- pkyd

**uW& mDr foHkxka ea i nka dh I [; k vko"; drkuØ kj fu/kkZjr gA**

**e.My Lrj dk; ky; dk Lo: i**

- v/kh{k.k vfHk; Urk
- o\$ fDr d I gk; d
- vk"kyfi d
- i'kkI fud vf/kdkjh Lrj&2
- e[; I gk; d
- i Øj I gk; d
- dfu'B I gk; d
- I x.kd
- i k: i dkj
- vuØ Ød
- pkyd

**uW& mDr foHkxka ea i nka dh I [; k vko"; drkuØ kj fu/kkZjr gA**

**[k.Mh; Lrj dk; ky; dk Lo: i**

- vf/k"kkI h vfHk; Urk
- I gk; d vfHk; Urk
- [k.Mh; y[ kdkj

- dfu'B vfhk; Urk&fl foy
  - dfu'B vfhk; Urk&; kf=d
  - i'kkI fud vf/kdkjh Lrj&2
  - vk"kfyyfi d
  - l æ.kd
  - ik: i dkj
  - e[; l gk; d
  - idj l gk; d
  - dfu'B l gk; d
  - ftynkj
  - e[; jktLo fyfi d
  - jktLo fyfi d
  - l hpoky
  - uydii pkyd
  - "kkk i ; b[kd
  - fpdfRI kf/kdkjh
  - fQVj
  - Vuuj
  - e[lfud
  - fM\*yj
  - iEi vkWjVj
  - c<bZ
  - fo | rdkj
  - lyEcj
  - okMZ CokW
  - okMZ vk; k
  - xst jhMj
  - pk[thnkj
  - csynkj
  - ekyh
  - j l kb; k
  - pkyd
  - l QkbZ delZ
- ukW& mDr foHkkxka ea inka dh l [; k vko"; drkuq kj fu/kkZjr gA

# ešy &1

## I xBu dh fof'k'V; M/dR; ,oadrD;

### eš; mš;

- Ukjka , oaxnyka ds fuekZk , oaj [kj [kko dk; A
- Ukydiwka , oafyM fl pkbZ i fj; kst ukvka ds fuekZk , oaj [kj [kko dk; A
- Ckk<+ l g{kk i fj; kst ukvka dk fuekZk , oaj [kj [kko dk; A
- Tkyfo | r i fj; kst ukvka ds vuq dkku , oafu; kst u] fuekZk , oaj [kj [kko dk; A
- Tky l d k/ku , oafyfo | r l g'pukvka ds i fjdYi u , oa 'kksk l adkh dk; A
- Tky l d k/ku , oafyfo | r i fj; kst ukvka ds gkbMkedsudy l a a-ka dk Qscds'ku , oabjD'ku dk; A
- vfhk; Urkvka ds fy; s i f'k{k.k , oa i R; kLej.k dk; Dæ dk vk; kst uA

### I xBu dk Lo#i

- 1 eš; vfhk; Urk Lrj&i Fke mUkjk[k.M fl pkbZ fohkx ds iæd'k gš tks viuk dk; Z i kš eš; vfhk; Urk Lrj&f}rh; ds l kFk djrs gš eš; vfhk; Urk Lrj&i Fke] fohkx ds dk; Z ds fy; s "kkl u ds ifr mRrjnk; h gkrs gš v/kh{k.k vfhk; Urk Lrj ds ofj"B LVkQ vf/kdkjh Lrj&i Fke o f}rh; dseš; vfhk; Urkvka dh l gk; rk djrs gš
- 2 fohkx dk l k'kl fud fohkx e.My gkrk gš ftl dk nkf; Ro v/kh{k.k vfhk; Urk ds ikl gš tks e.My ds i'kkl u vksj dk; Z ds fy; seš; vfhk; Urk ds ifr mRrjnk; h gkrk gš
- 3 e.My [k.Mka ea cW's gkrs gš ftudk nkf; Ro vf/k'kkl h vfhk; Urk ftUga [k.Mh; vf/kdkjh Hkh dgk tkrk gš ds ikl gkrk gš tks fd vius [k.M ds i'kkl u rFkk dk; kš ds fy; s v/kh{k.k vfhk; Urk ds ifr mRrjnk; h gkrk gš
- 4 [k.M ea mi [k.M gkrs gš ftl dk nkf; Ro l gk; d vfhk; Urk] ftUga mi [k.Mh; vf/kdkjh Hkh dgk tkrk gš ds ikl gkrk gš tks fd vf/k'kkl h vfhk; Urk ds l kFk&2 vius mi [k.M ds i'kkl u] dk; kš , oaf l pkbZ fohkx ds yškk l adkh dk; kš ds fy; s Hkh ftEeskj gkrk gš
- 5 [k.Mh; yškkdkj vius [k.M ds vf/k'kkl h vfhk; Urk ds yškk l ykgdkj gkrs gš vksj [k.M ds yškk dk; kš dk fuogu djrs gš [k.M ds yškk l adkh dk; kš ea mudh l Fkfr , d mi [k.Mh; vf/kdkjh ds l eku gksh gš muds eš; dk; Z fl pkbZ l adkh eki u dh t kš djuk yškk dk; kš dk nškk rFkk dšky , DV l s l ad/kr ekeyka dks nškk gkrk gš og egkyškkdkj ds ifrfuf/k ds : i ea dk; Z djrs gš
- 6 mi [k.M ea l D'ku gkrs gš gj l D'ku , d dfu"B vfhk; Urk ds fu; a.k ea gkrk gš tks l Hkh idkj ds dk; kš , oa mudh l g{kk ds fy; s mRrjnk; h gkrs gš yškk dk; kš ds fy; s [k.M ftynkfj; ka ea cW's gkrs gš ftl dh l hek; a mi [k.M dh l hekvka ds l keku; r% cjkj



glsrh gA gj ftynkj , d ftynkj ds fu; =.k ea glsrh gS tksfd ys[kk I ædkh dk; kã ds fy; s [kM/h; ys[kkdj rFkk ty ds cWokjs , oa vU; dk; kã ds fy; s mi [k.M vf/kdkjh ds fu; æ.k ea glsrk gA ftynkj vi us dk; Z vehuka , oa i rjksyka I s djkrk gA

7 uydii [k.M] mi [k.Mka ea foHkkftr gsrS gA I Hkh mi [k.M I gk; d vfHk; Urk ¼; kã=d½ ds fu; æ.k ea glsrS gA mi [k.M ds fl foy dk; Z dfu'B vfHk; Urkvka ea rFkk ; kã=d , oa fo |rh; I ædkh dk; Z dfu"B vfHk; Urkvka ¼; kã=dh½ ea foHkkftr jgrS gA ys[kk dk; Z I s I æu/kr uydii [k.M dk Lo#i ugj [k.M ds I eku glsrk gA gj , d uydii] uydii vki jv/ ds fu; æ.k ea glsrk gS tks ; kã=dh I ædkh dk; Z ds fy; s dfu"B vfHk; Urk ¼; kã=dh½ , oa fl pkbZ I ædkh dk; Z ds fy; sftynkj ds ifr mRrjnk; h glsrk gA

fl pkbZ vuq dku I ÆFku ds 'kksk e.Myka ea 'kksk vf/kdkjh o I gk; d 'kksk vf/kdkjh tks fd dæ'k% vf/k'kk I h vfHk; Urk o I gk; d vfHk; Urk gsrS gA , oa 'kksk i ; bskd rFkk iz kx'kkyk I gk; d tksfd mi jkDr vfHk; Urkvka ds I gk; d gsrS gS Hkh dk; Z djrs gA

mÜkj[k.M jkT; ea fuEufyf[kr I ÆFku Hkh I fefyr gA &

- fl pkbZ vuq dku I ÆFku] #Meh A
- fl pkbZ ifjdYi I æBu] #MehA
- jkt dh; m | kx'kkyk] #MehA
- if'k(k.k vfHk; ark I ÆFku) dkykx<A

## 1.0 fl pkbZ vuq dku I ÆFku] : Meh

### ifjp;

fl pkbZ vuq dku I ÆFku dh LFkki uk o"z 1928 bD ea mOi D fl pkbZ foHkkx ds vUrxZr y[kuÅ ea , d 'kksk mi [k.M ds : i ea gpZ A 'kksk dk; kã dh mi ; ksrk ds dkj .k mi [k.M ds dk; Z , oa vdkj ea of) glsrh xbZ vkSj o"z 1946 ea bl I ÆFku dks : Meh ea LFkfi r fd; k x; k A vkt ; g I ÆFku jk"Vh; gh ugha vfi r qvUrjZVh; Lrj ij Hkh , d iæ[k 'kksk dhnz ds : i ea fo[; kr gS , oa fl foy vfHk; kã=dh I Ecu/kh tfVy I eL; kvka ds funku ds fy; s dr I æYi , oa I {ke gS A I ÆFku ds vuq dku dk; kã ds fy; s : Meh o cgknjckn ea I fofl r iz kx'kkyk; a gA A

### I æBu

fl pkbZ vuq dku I ÆFku dk I eLr dk; Z I ÆFku ds e[; vfHk; Urk , oa funskd }kj I pkyr , oa fu; fi=r fd; k tkrk gS A bl dk; Z grq rhu e.My dk; jr gA , oa iR; æd e.My ea pkj&2 [k.M LFkfi r gA bu I eLr dk; kã grq 48 in vf/kdkj; ka , oa 240 in vU; oSkfud I æZ rFkk dfu"B vfHk; Urk ds Lohdr gA A e.Myka , oa [k.Mka ea gksus okys dk; kã dk foj .k fuEu i dkj gS A

## 1- tyfoKku e.My

- 1- ty foKku [k.M& i Fke
- 2- ty foKku [k.M &f}rh;
- 3- ty foKku [k.M& rrh;
- 4- ty foKku [k.M&prfKz

ck< , oadVko fu; æ.k dk; ] i g/ka  
, oa cškt vkfn dk LFky fuekZk , oa unh  
fu; æ.k A  
ugjks ds jS&gVj] fLi yoš buthZ  
fMI hi šku l ædkh dk; ] dykcka ds fMtkbu ea  
l qkkj l ædkh dk; ZA  
ty ifj; kstuk ds fl foy vfHk; kã=dh dk; A  
tyk'k; {kerk dk fu/kkZ .k , oa  
tyk'k; ka ea Hkjo l ædkh v/; ; u A

## 2 vk/kjkkbŠk.k e.My

- 1- Hknt y [k.M&i Fke
- 2- Hknt y [k.M&f}rh;
- 3- vk/kjkkbŠk.k [k.M
- 4- inkFkZ ijh{k.k [k.M&f}rh;

vkba kš/ki VŠ j fof/k l sugjka ds  
fj l ko dh ek=k uki uk , oa xf.krh; ifr: i  
v/; ; u] l LFkku }kj l pkyr i qrdky;  
dk vug{k.k A  
Hknt y; v/; ; u] ugjks l sfj l ko  
rFkk fofHku izdkj dh ykbfuax dk v/; ; uA  
ty l ædkh vkMMs dk xf.krh;  
v/; ; u] l qj l onu iz kx'kkyk rFkk  
dEl; Wj dšnz dk l pkyu] if'k{k.k vkfn A  
pVVkuks dk ijh{k.k , oa izdk'ku  
vuHkx l ædkh dk; ZA

## 3- inkFkZ ijh{k.k e.My

- 1- inkFkZ ijh{k.k [k.M&i Fke
- 2- efrdk [k.M&i Fke
- 3- efrdk [k.M&f}rh;
- 4- izkkl u [k.M

fofHku inkFkZ tŠ s l hešV] dšhV]  
bš/ka vkfn dk ijh{k.k rFkk dšhV feJ.k dk  
fMtkbu A  
feVh l ædkh l eLr LFky rFkk  
iz kx'kkyk ijh{k.k A  
feVh l s l æš/kr ijh{k.k dk; ]  
jkl k; fud iz kx'kkyk ea i kuh , oa l hešV  
ekš/kj l s l æš/kr ijh{k.k dk; A  
l LFkku ds l eLr dk; kšy; kš  
vkokl h; Hkouka dk j [kj [kko] Hk.Mkj , oa  
l a æka dk 0; ; yškk dk; Z , oa fjdKMZ vkfn  
dk j [kj [kko A

## iz kx'kkyk; a

I ðFkku ds vuð ðkku dk; kð ds fy; s: Mdh rFkk cgknjkckn ea l fofdl r iz kx'kkyk; a gð A tyfoKku l æðkh ifr: i v/; ; u , oa 'kksk dk; Z ty foKku vuð ðkku dðnz cgknjkckn ea gkrk gSA ; g dðnz 30 gðVsj ea QSyk gqk gsrFkk : Mdh gfj}kj ekxz ij Áijh xæk ugj ds fdukjs ij fLFkr gSA I ðFkku ds vlrxr ; gkñ, d l q FTtr \_\_rq iz kx'kkyk Hkh gð djðV ehVj dks dSyhcð/ djus ds fy; s, d jðVæk Vðl dh l fo/kk Hkh mi yC/k gSA

orðku ea fl pkbz vuð ðkku l ðFkku }kjk dj; s tk jgs tyfoKku l æðkh vuð ðkku dk; kð ds 'kqð dh nja nsk ea fLFkr vl; tyfoKku iz kx'kkykvks dh rgyuk ea vk/ks l s Hkh de gðftl dk dkj.k ; gkñ dh iz kx'kkykvka gsrq i kuh dk okðNr 'kh"z xfoVh qlyks ds v/khu vuojr : i l smiyC/k gkuk gSA nsk dh vl; iz kx'kkykvka tS l h M0ywi h vkj , l ] iqks ea ; g ifEiax }kjk gh miyC/k gks i krk gSftl ds dkj.k ogkñ ij v/; ; u eðjxs , oa vf/kd l e; ea gks i krs gð A l ðFkku dk 'kksk dk; Z : Mdh fLFkr fuEu iz kx'kkykvka ea gkrk gS %

- |                               |                                |
|-------------------------------|--------------------------------|
| 1- efrdk iz kx'kkyk           | 2- l heðV rFkk dððV iz kx'kkyk |
| 3- 'kSy ; kð=dh iz kx'kkyk    | 4- Hknt y iz kx'kkyk           |
| 5- , DohQj ekñifya iz kx'kkyk | 6- vkbz kð/ki iz kx'kkyk       |
| 7- l qij l ðnu iz kx'kkyk     | 8- jkl k; fud iz kx'kkyk       |

I ðFkku ds vlrxr : Mdh ea , d vk/kfud dEI; wj dðnz dh LFkki uk o"z 1988 ea dh xbz gS ftl ea orðku ea dbz i ðV; e dEI; wj miyC/k gð A dEI; wj dðnz ea miyC/k l kñVosj }kjk fuEu iz dkj ds dk; kð dk fo'ySk.k ipfyr , oa vk/kfud rduhd tS s OkbzkkbV , yheðV] ckmUMh , yheðV , oa OkbzkkbV fMQjðl rduhd l sfd; k tk l drk gSA

- 1- cðk fo'ySk.k eð; r% dððV Hkij jksku&xfoVh Mð vkp] feVvh , oa 'kSyHkfjra
- 2- ty foKku vfHk; kð=dh eð; r% cðk fopNn ifr: i &Mð cð , ukys l ] tyk'k; {kerk , oa vol kn fl YV fu{ki .k] l tZ Vðl , oa ty?ku ] okVj gðj fo'ySk.k] ugj ifjdYiu] cðk ds iðkg vkðyu] ty foKku l æðkh MkVk dk l kð; dh; fo'ySk.k A
- 3- dððV iðt ea Å"ek i Hkko ] ?kuh dððV ea Vði pj fMLVh; wku dk ifr: i uA
- 4- Hknt y iðkg , oa Hknt y l ðHkij ] , DohQj dk xf.krh; v/; ; u A
- 5- uhð , oa Hkñexr vfHk; kð=dh eð; r% jkñV ds fy; s uhð ifjdYiu] Hkñexr vki fuðl ] dUM; w , oa l gax fo'ySk.k A
- 6- l jþuk vfHk; kð=dh eð; r% fo | r xg l jþuk l æðkh Vsyjð ] che o dñye dk ifjdYiu A
- 7- cðk fopNn , oa ufn; ka ea l ðVheðV Vðl i kð/Z ifr: i .k] ekbð&11] l kñVosj }kjk l qij l ðnu] fjekð/ l ðl x iz kkyh l s nðh; vkinvka dk vkðyu] ufn; ka dk iðtZ] \_\_f"k ou l ðnk] tyk'k; l ðnk dk vkðyuA

mnas; %&

inšk dh l kekftd ,oa vkfFkZ mlUufr gsrq ml dk dF"k ,oa vksj kfxd {ks= ea fodkl ,oa vkrē fuHk}rk vko'; d gSbl l h.Fkk dk mnas; nšk ,oa inšk dh fl pkbZ ,oa fo | r ifj; kst ukvka dh U; ure ykx ij l jf{kr ifjdYiu} 'kksk dk; kD; u rFkk l eipr vuqJo.k ,oa eW; kD;u gsrq vko'; d rdudh vk/kkj miyC/k djuk gSA bu mnas; ka dh ifjifirZ gsrq ; g l h.Fkk eQ; r% fuEu {ks=ka ea dk; Z djrk gSA

- 1 ifr: i v/; ; u }kjk fofHku l jupukva ea l qkkj ,oa fofHku fMtkbuka dh n{krk dk eW; kadu l adkh dk; Z tS s &
- d ck< fu; æ.k ,oa dVko jkdus ds fy; s dk; ZA
- [k ufn; ka ij ig/ka ,oa ckt ds fy; s LFky dk p; u rFkk unh fu; æ.k dk; ZA
- x ugjka ea feVvh dk teko jkdus rFkk vkbZ gPZ feVvh dks fudkyus l adkh v/; ; uA
- ?k ckdka ds buVad] fl iyo} but hZ fMl hi Vj l Ecu/kh v/; ; uA
- p fo | r xgka ds ckbZ kl ] Vsyj d rFkk l tZVad l Ecu/kh v/; ; uA
- 2- fofHku ifj; kst ukvka ds fMtkbu rFkk fuekZk ds fy; s feVvh] pVVkuka rFkk vU; inkFkka dk iz ks'kkyk ,oa LFky ij h{k.k dj mudh xqoRrk Kkr djukA
- 3- fofHku idkj dh l jupukva ij iMas okys nko Kkr dj muds vuq kj dadhV rFkk vU; inkFkka dk iz ks'kkyk ,oa LFky ij h{k.k dj mudh xqoRrk Kkr djukA
- 4- vkbZ ks/ks Vj j rFkk vU; fof/k; ka l sugjka l sfjl ko dh ek=k uki uk rFkk bl ds jkdus ds fy; s fofHku idkj dh ykbfuax dk muds eW; ,oa mins rk ds vk/kkj ij eW; kadu] dkykka dk fMtkbu] uydih dk ifjdYiu] vf/kdre mojr k gsrq fofHku {ks=ka ea mi ; q r Ql y pdzfu/kkj .k gsrq v/; ; u A
- 5- tyk'k; kseaf l YV dk teko Kkr djuk rFkk bl s de djus gsrq mik; djukA
- 6- o"kkZ ,oa ck< l adkh vkDdMks dk xf.krh; v/; ; u rFkk mijkDr {ks=ka ea vk/kkj Hkr v/; ; u A
- 7- dEl; Wj }kjk ckd fo'ySk.k] ty foKku vfHk; ka=dh dh uhd ,oa Hkifexr vfHk; ka=dh ,oa l jupuk] vfHk; ka=dh l adkh dk; kZ dk fo'ySk.k A
- 8- ty l d k/ku ea=ky; Hkjr l jdkj rFkk vU; ik; kst dka }kjk i s"kr vk/kkj Hkr v/; ; u A
- 9- mijkDr fo"k; ka l adkh vU; l eL; kvks ds funku gsrq v/; ; u ,oa 'kksk dk; A

vU; inška ,oa l h.Fkkuka ds dk; ka l s l Ecu/kr i adk ifj; kst uk; a

- 1- fxj tyfo | r ifj; kst uk -fgekpy inšk
- 2- HkkHkk tyfo | r ifj; kst uk -fgekpy inšk
- 3- xloh tyfo | r ifj; kst uk -fgekpy inšk
- 4- cXxh tyfo | r ifj; kst uk -fgekpy inšk
- 5- jkaVka tyfo | r ifj; kst uk -fgekpy inšk
- 6- ukFki k&>kdjh tyfo | r ifj; kst uk -fgekpy inšk
- 7- cl ik tyfo | r ifj; kst uk -fgekpy inšk

- 8- I kjk"V<sup>a</sup> ckp dšky] I jbnz uxj -xqjkr
- 9- dks h unh ij iLrkfor I Mel iŷy] dji syk -fcgkj
- 10- frjgr dšky ij v/; ; u dk; L-fcgkj
- 11- jktLFkku ,oa I jfgln QhMj pšy] -jktLFkku
- 12- I qjh fo; j ij v/; ; u dk; L-jktLFkku
- 13- I yky gkbMkbyšDV<sup>o</sup>d i kstšV -tEewd'ehj
- 14- fl ; kx unh ds ikl h ?kkV ij fct I kbVax dk dk; L-vl e
- 15- ykšgr unh ij fct I kbVax dk dk; L-, u-b-, Q-, -
- 16- cgeiŷ unh ij rstij dsfudV fct I kbVax dk dk; L-vl e
- 17- jk"Vh; jktekxL37 ij nšgax dsfudV fct I kbVax dk dk; L-vl e
- 18- if'peh ; epk dšky ij v/; ; u dk; L-gfj; k.kk
- 19- ipdyk ea?k??kj fct I kbVax dk v/; ; u -gfj; k.kk
- 20- dkyikx tyfo|ŕ ifj; kstuk ds , utHz fMl hišj dk ifr: i v/; ; u v.Meku&fudkškj
- 21- xšj f'kykx ty vki firL; kstuk dk ifr: i v/; ; u -ešky;
- 22- x<ešoj ds I ehi xak unh ij jšyosfct dk v/; ; u -šy foHkx

mškj i nšk jkT; ds dk; kš I s I Ecfu/kr i šqk ifj; kstuk; a &

- 1- fVgjh ckšk ifj; kstuk
- 2- ; epk tyfo|ŕ ifj; kstuk LVst&1 , oa LVst&2
- 3- eujHkkyh tyfo|ŕ ifj; kstuk LVst&1 , oa LVst&2
- 4- fpYyk tyfo|ŕ ifj; kstuk
- 5- Jhuxj tyfo|ŕ ifj; kstuk
- 6- fo".kšz kx tyfo|ŕ ifj; kstuk
- 7- y[kokM&0; kl h tyfo|ŕ ifj; kstuk
- 8- tejkuh ckšk ifj; kstuk
- 9- [kjk tyfo|ŕ ifj; kstuk
- 10- xak ugj ifj; kstuk
- 11- e/; xak ugj ifj; kstuk
- 12- i šHz xak ugj ifj; kstuk
- 13- 'kkjnk I gk; d ifj; kstuk
- 14- I j; wugj ifj; kstuk
- 15- pEcy Mky ugj ifj; kstuk

## 2.0 fl pkbz ifjdYi I xBu] : Melh

, f'k; k egk}hi ds , d ek= ogn ckšk ifj; kstuk ds #i ea fVgjh ckšk ifj; kstuk ds fuekZk dk; L ea 'kš?k-k ykus rFkk ifjdYi ds vu#i fuekZk ea vkus okyh fnu ifrfnu dh dfBukbž; ka ds 'kš?kz

fuokj.k ds mnæs; l sfVgjh ckWk ifj; kstuk l sl æf/kr ifjdYi u dk; Zgrq, d e.My o"lz 1971 ea #Mæh ea LFkkfir fd; k x; k FkA fVgjh ifj; kstuk l sl æf/kr l eLr rRdkyhu dk; Zbl e.My ds vLrxr l ftr pkj [k.Mka }kjk l Ei kfnr fd; s tkrS FkA

bl ds lk"pkr eujh Hkkyh ty fo|q ifj; kstuk ,oa xak vls ; epk ?kkVh rFkk fgeky; ea fLFkr vU; ty fo|q ifj; kstukvka ds ifjdYi u dk; Z, oa tyx.kuk ds dk; Z Hkh ; gha ij fd; s tkus yxA rnkj jkUr o"lz 1978 ea 9 vfrfjDr e.Myka ,oa 2 eQ; vfhk; Urkvka ds l kfk ifjdYi l æBu] #Mæh dk l tu fd; k x; k ftl ds }kjk fgeky; {ks= ea fLFkr mUkjk[k.M dh ogn cgmnaSkh; ifj; kstukvka dh ifjdYi u vko'; drkvka dks Rofjr xfr l s iwkZ fd; k x; kA ; g l æBu eujh Hkkyh ifj; kstuk] [kkjk ty fo|q ifj; kstuk] fpYyk ty fo|q ifj; kstuk rFkk fVgjh ckWk ifj; kstuk ,oa vU; cMh ifj; kstukvka ds ifjdYi u ,oa ty x.kukvka ds dk; Zgrqcgmi ; ksch fl ) gqkA

; g l æBu fi Nys 34 o"kkz l s viuh vk/kkjHkur l fo/kkvka ,oa vfr vk/kjud rdudh ,oa Kku ds vk/kkj ij ty fo|q ifj; kstukvka ,oa ty l a kku ds vucl {ks=ka ea insk dh egROIwkZ l ok djrk jgk gA bl l æBu }kjk fofHku idkj ds ckWk l jax fo|qxg] gkbMts ebfudy xVt] cSkt] dkW Mst dk; ka dk ifjdYi u fd; k x; k rFkk gkbMtsykstH l sl æf/kr dk; Z Hkh fd; k x; kA

bl ds vfrfjDr feuh ,oa ekbdkgkfMy dkj i kjsku mRrj insk ds fMtkbu dUl yVØV dh gS l ; r l s mudh ifj; kstukvka ds ifjdYi u ds dk; Z Hkh fl pkbZ ifjdYi l æBu] #Mæh }kjk fd; s x; s gA bl l æBu }kjk nsk ,oa insk ds vU; eQ; ifjdYi] vucl akku ,oa f'k{k.k l LFkkuka l s rdudh Kku dk vknku inku Hkh fd; k tkrk gA mUkjk[k.M jkT; dks ÅtkZ jkT; cukus ds ljdkj ds l adYi dks ijk djus grq fofHku ty fo|q ifj; kstukvka ds ifjdYi u dk; ka dks ijk djus ds fy; s; g l æBu iwk#i l sl {ke gA

ifjdYi l æBu }kjk fuEu iæQk ifjdYi dk; Zfd; s tkrsg&

- dæhV xfoVh Mæ
- v?kZ vls jkbfQy MæI
- jksy dEiSDVM dæhV MæI
- l jQd vls vUMjxkmUM ikoj gkml
- l tVæd @ l jax
- i&lVkd @ i&kj 'kqV
- bUVd vls l SMeØVsku pæcj
- fofHku idkj ds gkbMktyd xVt
- fi l Vg M dæhV fct vls vDokMDVt
- cSkt xVt vls gkbLV
- dkl Mst odZ
- dsky LVØpj

## e/; I Eiknr dk;Z%

1. ; epk ty fo | r ifj; kst uk pj .k&i Fke
2. ; epk ty fo | r ifj; kst uk pj .k&f}rh;
3. jkexæk ifj; kst uk
4. eujhkkkyh tyfo | r ifj; kst uk pj .k&i Fke
5. x<oky \_f"kdsk tyfo | r ifj; kst uk
6. [kkjk tyfo | r ifj; kst uk
7. Åijh xæk ugj vk/kfudhdj .k ifj; kst uk
8. xæk c]kt] dkuij
9. eujhkkkyh tyfo | r ifj; kst uk pj .k&f}rh;
10. fVgjh ckkk ifj; kst uk

## fo'kk tyh; v/; ;u

- 1- fVgjh ckkk ifj; kst uk
- 2- ckoyk ulln iz; kx tyfo | r ifj; kst uk
- 3- rikou fo" .kq xkMZ tyfo | r ifj; kst uk
- 4- Jhuxj tyfo | r ifj; kst uk
- 5- y [kokM 0; kl h ifj; kst uk
- 6- tejkuh ckkk ifj; kst uk
- 7- fo" .kq iz; kx gkbfiMy Ldhe
- 8- d .kã iz; kx gkbfiMy Ldhe
- 9- e/; xæk d&ky LVst&2
- 10- cjdki/ dWk gkbfiMy Ldhe
- 11- gu&ku pVvh fl vku pVvh gkbfiMy Ldhe
- 12- fl vkupVvh x&ukuh gkbfiMy Ldhe
- 13- dWk cuhZ xkMZ gkbfiMy Ldhe
- 14- nojk eljh gkbfiMy Ldhe
- 15- eljh guky gkbfiMy Ldhe
- 16- guky R; qh gkbfiMy Ldhe
- 17- R; qh lykl w gkbfiMy Ldhe
- 18- vjkdki/ R; qh gkbfiMy Ldhe

## ekbdsgkbfiMy ifj; ktukvka dk ifjdYiu%

fl pkbz ifjdYi I xBu }kjk fuEu y?kq ty fo | r ifj; ktukvka ds fy; s Hkh ifjdYi dk; Z fd; k x; k&

	de l 0 ifj; kst uk	tuin	{kerk/d0okV½
1-	fpjfdyk ifj; kst uk	fi Fkkj kx <	1500
2-	dykxkM ifj; kst uk	fi Fkkj kx <	1200
3-	l lr'oj ifj; kst uk	fi Fkkj kx <	300
4-	plnund ifj; kst uk	fi Fkkj kx <	400
5-	xjku ifj; kst uk	fi Fkkj kx <	300
6-	cjkj ifj; kst uk	fi Fkkj kx <	750
7-	ry'oj ifj; kst uk	fi Fkkj kx <	600
8-	dpk/h ifj; kst uk	fi Fkkj kx <	2000
9-	l kcyk ifj; kst uk	fi Fkkj kx <	6000
10-	texkM ifj; kst uk	pekyh	1200
11-	mnxe ifj; kst uk	pekyh	3000
12-	cydk ifj; kst uk	l gkjui j	3000
13-	ccy ifj; kst uk	l gkjui j	3000
14-	jy'kxkM ifj; kst uk	fi Fkkj kx <	3000
15-	fi yxxkM ifj; kst uk	mRrj dk' kh	2250
16-	l kcyk ifj; kst uk & AA	fi Fkkj kx <	1500
17-	cnhukFk ifj; kst uk	pekyh	1250
18-	'khryk ifj; kst uk	>kw h	3600

### 3.0 jkt dh; m |ksx'kkyk| : Mdh

#### ifjp;

duy SIR PROBY T. CAUTLEY, K.C.B., F.R.S. ds funku ea o"z 1843 ea xak dky ds fl pkbz l Ecu/kh dk; ka dks l Eikfnr djkus grq CAPTAIN TURN BULL }kjk l ksykuh , DokMDV ds fudV xak dky ds cka a fdukjs : Mdh odZkki dh LFkki uk dh xbA o"z 1851 ds mijkr bl dk; Zkkyk }kjk ukFkz o&V i ksofUl t] tka or'eku ea mRrj insk ds uke l stkuk tkrk g} ds fy, vk; ju , .M oM Qkj tuju ijft#] vkjejh eFkeVhdY bULVheBV , oa QkmUMh eVhfj; y cukus dk dk; Z Hkh dj; k x; ka fnukd 30&10&1852 rd : Mdh odZkki] mRrjh [k.M xak ugj ds l kfk l Ec) jghA 1 uofcj] 1852 l s; g LorU= bdkbz ds : i ea dk; Z djus yxh rFkk bl odZkki ds iFke l qjUVBMSV yS , yu FkA

o"z 1851 ea ck; yj] LVhe bitu] lyfux e'khu] fMfyax , oackjx e'khu] Vfuzk , Oka'kh; fjax e'khu] yfk e'khu] LØhax e'khu , oa oM ofclak e'khu] bR; kfn x& fcl/su l seaxk dj bl odZkki ea LFkfi r dh x; h A bu e'khuka dks ck; yj , oa LVhe bitu dh l gk; rk l s pyk; k x; k A bl ds



mijlur foHkku pj.kka ea le; &2 ij xM fcl/su l se'khus exok dj o"q 1915 ds vki iki jsyos ds fy; s dkp bR; kfn ds fuekZk dk; Z : Meth odZkki ea dj; s x; s A ; g odZkki dN le; rd futh {ks= ea dk; jr jgus ds mijlur i q% fMOd vkQ bM; k : YI ds vlrxr o"q 1943 ea jktdh; fu; U=.k ea syh xBA m | ks foHkx ds fu; a.k ea jgus ds mijlur o"q 1953 l svc rd fl pkbZ foHkx ds vlrxr dk; jr gA

## orëku Lo#i

orëku ea jktdh; fl pkbZ m | ks'kkyk] : Meth fl pkbZ foHkx mRrjkpy ds vlrxr , d ek= vkbD, l Ovko ifr"Bk ikr dk; Zkkyk gA ; g dk; Zkkyk eq; r% ugjka , oa cjt ds ch/kka l s l EcfU/kr fuekZk , oa LFkki u dk; Zdjrh jgh gA

orëku ea bl dk; Zkkyk ea fl pkbZ foHkx ds vfrjDr **ch, p-bl, y-] gfj}kj]** ds dk; Z Hkh l akfnr dj; s tk jgs gA dk; Zkkyk ea l Hkh dk; Z BdkbZ ykHk , oa gkfu ugha ds vk/kkj ij dj; s tkrsgA l Hkh dPpk eky LVhy vFkfjVh vkQ bf.M; k fyfeVM] bLdk; Mh-th, l- , .M Mh- }kjk ikr fd; k tkrk gA bl dk; Zkkyk ea orëku ea yHkx 350 vf/kdkjh , oa depkjh dk; jr gA bl izdkj ; g dk; Zkkyk u doy nsk dh fl pkbZ , oa fo | q i fj; kst ukvka ds fuekZk ea vi uk egRo iwZ ; kxnu ns jgh gS cfyd ch, p-bl, y- ds ek/; e l s x\$ gkbMts VjckbZ l s l EcfU/kr l a a-ka ds fuekZk dk; Zdjkdj nsk ds fy, fonskh epk vftz djusea Hkh l g; ks dj jgh gA

orëku ea dk; Zkkyk ds vlrxr mi yC/k ; a , oa l a U=ls dk foj.k fuEu gA

### • Machine Shop

	<u>Capacity</u>
1. Universal Milling Machine	250 and 900 mm
2. Vertical Milling Machine	300 mm
3. Horizontal Milling Machine	350 mm
4. Turret and Capston Lathe Machine	900 mm
6. Centre Lathe Machine	6 mm - 12 mm
7. Vertical Boring Machine	700 mm
8. Horizontal Boring Machine	300 mm
9. Duplex Boring Machine	450 mm
10. Planner Machine	
11. Shaper	
i) Horizontal	600 mm
ii) Vertical	300 mm
12. Gear Hobbing Machine	500 and 2000 mm
13. Central Grinding Machine	150 and 325 mm

### • FOUNDRY & BLACK SMITHY SHOP

1. Coupola	3 and 5 MT
------------	------------

2. Electric Furnace
3. Mold Making Machine
4. Air Compressors
5. Blowers
6. Power Hammer 3 and 10 Cwt.

- **PATTERN SHOP**

1. Band Saw 14 and 24 mm
2. Wood Planner
3. Turning Lathe

- **FABRICATION SHOP**

- |   | Capacity     |
|---|--------------|
| 1. E.O.T. Crane                               | 5 and 10 MT  |
| 2. Punching Machine                           | 40 and 70 MT |
| 3. Shearing Machine                           |              |
| 4. Centre Lathe                               |              |
| 5. Single and Double Lead Welding Transformer |              |
| 6. Hydraulic Jack                             |              |
| 7. Plate Welding Machine                      | 25 mm        |
| 8. Radial Drill machine                       |              |
| 9. Welding Machine                            |              |
| 10. Jack                                      | 100 MT       |
| 13. Overhead Crane                            | 10 MT        |
| 14. HMT Radial Drill machine                  |              |
| 15. Welding generator set                     |              |
| 16. Pug cutting machine                       |              |

- **PLATE BENDING SHOP**

1. Hydraulic plate bending machine (conical bending, pre-prinching, pre-rolling)
2. Submerged Arc Welding Boom with Automatic Welding Rectifier
3. Miller D.C. Arch Welder with Welding Control
4. Piper Rotator
5. Welding Machine
6. Pug Machine
7. X-Ray Machine
8. E.O.T. Crane 10 MT Capacity

- **Mini Climbing Crane of 1000 kg capacity fabricated at Workshop**

## e[; I Eifnr dk; kdk foj.k

- |   |                           |
|---|---------------------------|
| 1- x[ & 18 eh0 x 5 eh0  | MkdiRFkj c[kt             |
| 2- x[ 18 eh0 x 5-5 eh0  | vgl ku c[kt               |
| 3- gkbMts e[lfudy mi dj.k   | <dkuh@<kyhi j fo   r[xg   |
| 4- gkbMts e[lfudy mi dj.k   | jkexak c[kt               |
| 5- x[ 18 eh0 x 6 eh0  | vk[kyk c[kt               |
| 6- gkbMts e[lfudy mi dj.k   | cnji j fo   r[xg          |
| 7- x[ 18 eh0 x 6 eh0  | xkerh c[kt                |
| 8-  | ; epk tyfo   r ifj; kstuk |
| 9- x[ 7 eh0 x 3 eh0   | i wh[ xak ugj             |
| 10- gkbMts e[lfudy mi dj.k x[/l , oa i [LVkd                          | eujHkkyh LVst I & II      |
| 11- x[ Vckbu dsfy; smi dj.k   | ch0, p0bD, y0 gfj}kj      |
| 12- gkbMts e[lfudy mi dj.k  | f=oskh LVpl Zfy0bykgckn   |
| 13- ckb[ kl x[/t  | , u0, p0i h0l h0 Vudi j   |
| 14- x[ Vckbu dsfy; smi dj.k   | ch0, p0bD, y0] gfj}kj     |
| 15- Q[;hd[sku vkQ bfDoie[VI Qkj i s j e'khujh; i h0 , xks i kMDVt fy0 | Åi jh xak ugj             |
| 16- x[ 18 eh0 x 5 eh0   | vk/k[quhdj.k ifj; kstuk   |

## 4.0 in[sh; vfhk; ark if'k{k.k I [Fkku] dkykx<+

### i[rlouk

in[sh; vfhk; ark if'k{k.k I [Fkku dh LFkki uk i wbrh[ mRrj in[sk jkT; }kjk o"lz 1980 ea fl pkbZ foHkx rFk ykd fuekZk foHkx ds vfhk; ark vf/kdkfj; ka dks rduhdh] foRrh; rFk izkkl fud dk; k[ ea if'k{k.k inku djus grq dh x; h FkhA uoxfBr mRrj kpy jkT; dh HkSk[cyd I hek eaLFkr gks ds dkj.k fnauk 9&11&2000 I s ; g I [Fkku ml ds izkkl fud fu; [k.k/kuh gks x; k g[ mOiD i qxBu vf/kfu; e dh /kjk&71 ¼1½ ds vlrx[ mOiD jkT; ds vfhk; arkvka dks Hk i wbr if'k{k.k inku djus dk ito/kku g[

mRrj[k.M 'kkl u }kjk bl I [Fkku dh xrfok/k; ka dk foLrj I eLr vfhk; [k foHkxka rFk fuxeka ds rduhdh dkfeZka ds if'k{k.k ds fy; s djus grq bl ds mPphdj.k , oa I q[<hdj.k ds I Ecl/k ea i kstDV fjik[Z r[ kj djus ds fun[ k fn; s x; s g[ bl ds fy; s I [Vj Qk[ Moyie[ LVmht] izkkl u vdkneh] u[hrky dh ijke'kz I ok yh x; h g[ ijUrqvHkh rd u[hrky vdkneh }kjk mDr fjik[Z miyC/k ugha dj; h tk I dh g[ fQj Hkh if'k{k.k I [Fkku ds vf/kdkfj; ka }kjk I e; &2 ij izkkl u vdkneh u[hrky ds I Ecf/kar vf/kdkfj; ka I s fopkj foe'kz rFk u[hrky ea miyC/k voLFkki ukvka dk v/; ; u dj i kstDV fjik[Z r[ kj djds i=kad 5624@i[vid @Vh&3]fnauk 15&12&04 }kjk e[; vfhk; ark ifj dYi , oa fun[ kd] fl pkbZ vuq [kku I [Fkku] : Mdh , oa e[; vfhk; ark , oa foHkxk/; {k]

fl pkbZ foHkkx mRrjkpy] ngjknw ds ek;/e l s 'kkl u dks i f'kr dj 'kkl u us 'kkl oI 01 0658@11&2005&04%06%@2005 fnaukd 1-3-2005 }kjk Lohdfr inku djds foRrh; o"K 2004&05 grq /kujkf'k 50 yk[k vkofVr fd;k x;k Fkk ftl ds fo: } rFkk ekpZ 2005 rd mDr /kujkf'k dk iwZmi ;ks fd;k tk pdk gA

**lkkl fud 0; oLFk**

;g l LFku funskd ds fu;=akk/khu gS rFkk l eLr vf/kdkfj; ka ,o de p'kfj; ka ij mlgha dk izklkl fud fu;=k gA funskd dks 'kkl uknsk l ;k % 3216&nks@ 80&23@fl 0&2@92&80, fba;jd 17&12&80 }kjk foHkkxk/; {k ?kks"kr fd;k x;k gA l LFku ds izklkl fud ekeyka ds l Ecu/k ea fopkj djds vko'; d uhfr fu/kkZjr djus ds fy; s l fpo%l pkbZ dh v/; {krk ea izklkl fud l ykgdkj l febr] 'kkl uknsk l 901@nks@85@23&fl 0&2@32@81] fnaukd 16&3&85 l i fBr 'kkl uknsk l 1235&nks@85&23&fl &2@32&82] fnaukd 1&4&85 }kjk xFBr dh gq h gA bl l febr eafuEufyf[kr l nL; gA

- 1- l fpo%l pkbZ v/; {k
- 2- l fpo] ykd fuelZk foHkkx l nL;
- 3- foRr l fpo ;k ukfer vf/kdkjh l nL;
- 4- l fpo fu; kstu ;k ukfer vf/kdkjh l nL;
- 5- fo'kSk l fpo%l pkbZ l nL;
- 6- i ed[k vfHk; rk]fl pkbZ foHkkx l nL;
- 7- i ed[k vfHk; rk]ykd fuelZk foHkkx l nL;
- 8- funskd] inSkh; vfHk; rk i f'k{k.k l LFku]dkyKx<A l nL; l fpo

l LFku ds izklkl fud dk; k eami funskd % izklkl u% }kjk funskd dh l gk; rk dh tkrh gA

**ctVh; 0; oLFk**

l LFku ds vf/k"Bku] voLFkki uk l fo/kkvka ds l pkyu rFkk vuj{k.k rFkk i f'k{k.k l Ecu/kh xfrfof/k; ka ij jkT; l jdkj ds ctV ds vlrxZ vkofVr /kujkf'k 0; ; gkrh gA

mRrjk[k.M jkT; dsxBu ds mi jkUr vk; kstr iB; Øe dh lLFkr rkfydk&1 eavidr gA rkfydk&1

**mRrjk[k.M jkT; dsxBu ds mi jkUr vk; kstr iB; Øe dh lLFkr**  
**%nukd 09-11-2000 l sfukd 31-03-08 rd½**

Ø 01 a 0	foRrh; o"K	iB; Øe dk uke	foHkkx dk uke	iB; Øe dh l ;k	i f'k{k( MFkZ kadh l ;k						dy ;ks
					mRrjk[k.M			mRrj inSk			
					fl foy	;k=d	;ks	fl foy	;k=d	;ks	
1	2	3	4	5	6	7	8	9	10	11	12
1	2000&01	vf/k"Bki u %l o"KZ vk/kjHkr %B ekg½ vk/kjHkr %B ekg½	fl pkbZ foHkkx &rnb& ykofu0fo0	6 1 2	53 10 3	& & &	53 10 3	119 & 6	& & 3	119 & 9	172 10 12

2	2001&02	vf/k'Bki u vk/kjHkr vk/kjHkr iR; kLej.k	fl pkb. foHkx &rn& yk@fu0fo0 fl fo@yk@fu0 fo0	4 1 2 &	2 11 1 &	4 & 1 &	6 11 2 &	33 & 15 &	43 & 1 &	76 & 16 &	82 11 18 &
3	2002&03	vf/k'Bki u vk/kjHkr vk/kjHkr iR; kLej.k	fl pkbZ foHkx &rn& yk@fu0fo0 fl pkbZ foHkx	2 2 & 1	3 6 & 9	& & & &	3 6 & 9	26 11 & &	1 25 & &	27 36 & &	30 42 & 9
4	2003&04	vf/k'Bki u vk/kjHkr vk/kjHkr  vk/kjHkr iR; kLej.k	fl pkbZ foHkx &rn& &rn& %dfu"B vfHk0 ; k@% yk@fu0fo0 fl pkbZ foHkx	2 7 1  2 7	& 12 &  8 187	& & &  3 &	& 12 &  11 187	2 100 &  & &	1 14 49  & &	3 114 49  & &	3 126 49  11 187
5	2004&05	vk/kjHkr  fof'k"V i kB; Øe %cl&ky yk% iR; kLej.k	fl fo] l 0v0 yk@fu0fo0] l 0v0 yk@fu0fo0] d0v0 fl @fo0] d0v0 fl fo] vf/k0vfHk0 fl pkbZ foHkx	2 2  4 1 2 4	& 57  122 30 18 103	1 &  & & & &	1 57  122 30 18 103	& &  & & & &	36 &  & & & &	36 &  & & & &	37 57  122 30 18 103
6	2005&06	vk/kjHkr iR; kLej.k	fl @fo0@ yk@fu0fo0	20 15	298 475	& &	298 475	& &	& &	& &	298 475
7	2006&07	vk/kjHkr vk/kjHkr  d&ky yk% iR; kLej.k  iR; kLej.k	fl @fo0] l 0v0  yk@fu0fo0] l 0v0  yk@fu0fo0] d0v0  xkeh.k vfHk0 l ok fl @fo0] v0v0 i s ty fu0] l 0v0 i s ty fu0] d0v0 mRrjk0ty fo0fu0 l 0v0 rduhdh depljh	3  1 3  2 1 1 1 1 3 1	52  10 55  19 5 29 14 77 28	&  & &  & & & & & & &	52  10 55  19 5 29 14 77 28	&  & &  & & & & & & &	&  & &  & & & & & & &	&  & &  & & & & & & &	52  10 55  19 5 29 14 77 28

8	2007&08	v/k/kjHkr	fl 0 fo0 l 0v0	1	30	4	34	&	&	&	34	
			yk0fu0fo0	1	5	&	5	&	&	&	5	
			l 0v0									
			fl 0fo0	2	16	&	16	&	&	&	16	
			yk0fu0fo d0v0	2	68	&	68	&	&	&	68	
			xt0vfhk0l 0k									
			d0v0									
			fl 0fo0@yk0fu0	2	24	&	24	&	&	&	24	
			fo0 @xt0 vfhk0									
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iR; kLej.k	vki nk icU/ku	vYi vof/k	fl 0fo0@yk0fu0	6	232	&	232	22	&	22	254	
			fo0 @xt0vfhk0									
			l 0@ i0t0fu0	1	40	&	40	&	&	&	40	
			m0t0fo0fu0									
			d0v0	1	19	&	19	&	&	&	19	
			l 0v0									
			vf/k0oxD ds	2	31	&	31	&	&	&	31	
			deD	2	60	&	60	&	&	&	60	

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l 0LFkk eafuEufyf[kr voLFkki uk l fp/k; a mi yC/k gS&

- 1- l 0LFkk ea rhu 0; k[; ku''kkyk; a gS budks vk/kfudh l fp/kvka l s l q FTtr fd; k tk jgk gA
- 2- dk; kZy; Hkou vR; Ur ijgkuk o th.k{kh.kZ gkus ds dkj.k i qjks}kj iLrkfor gA
- 3- dEI; Wj dhnA dhnz dk i qjks}kj , oa mPphdj.k fd; k tk jgk gA bl l 0LFkk ea 20 dEI; Wjka l s; Dr , d dEI; WjyS; gA
- 4- i qrdky; ea vk/kfud f'k{kk i}fr dh i qrdka dk icU/k fd; k tkuk iLrkfor gA
- 5- ; krk; kr grq gkykfd rhu LVkQ dkj] , d eS/kMkj] , d thi rFkk , d MhyDI cl igys l s mi yC/k Fkh ijUr q l Hkh xFM; kW vR; f/kd ijgkuk gS rFkk budk j[kj[kko vR; f/kd eogxk (Uneconomical) gA l 0LFkk eafLFkr yxHkx l eLr xFM; ka 1988 ekMy ; k ml l s Hkh dkQh ijgkus ekMy dh gS rFkk vkj0Vh0vk0}kjk bruh ijgkuk xFM; ka ds jftLV\$ku ds uohuhdj.k djus Hkh euk dj fn; s x; s gA vr% xFM; ka ds ekeya ea fLFkr vR; Ur% l onau FkhA vr% l 0LFkk ea u; h xFM; ka ds dz; grq; kstuk ikfo/kku l 0LFkk ds mPphdj.k dh ; kstuk ea djds ; kstuk dh forrh; Lohdfr 'kkl u dj; h tk pph gSftl ds fo: } , d Nks/s okgu dkj dk dz , d vuq; ksh okgu dks l oS fjiksZ dj uhykeh ds mijUr Replacement ds vk/kj ij forrh; o''kZ 2004&05 ea fd; k tk pph gS rFkk , d dkj o rhu eksj l kbfdy dz dh tkuk iLrkfor gA
- 6- ; kskH; kl , oa [kSydm {ks= ; ks'kkyk ea 0; k; ke grq vk/kfud fte vkfn dh 0; oLFkk dh tk pph gA vl; vko'; d 0; oLFkk; a Hkh ; Fkkl e; l EiUu dj yh tk; schA
- 7- eukjtu xGA bl ea 54'' Vh0oh0 rFkk eukjatu ds vl; l k/ku l kmM l lVe vkfn dh 0; oLFkk dh tk pph gA
- 8- jkt dh; fpdfRI ky; A

- 9 rhu QhYM gklVvy ftuea 2 'kš; kvka okys dty 54 d{k gA QhYM gklVvy vR; Ur [kjk gkyr ea Fks budks nhd ds i Hkko l s cpkus gsrq ,UVh VjekbV VhVeWV rFkk vU; vko'; d ejEer vkfn dj; h tk pcdh gA [kjk cM'khV xnnš rfd; s o cM vkfn Hkh cnyok fn; s x; s gA
- 10- vfrfFk iDDrkva gsrq QhYM gklVvy ftl ea 2 'kš; kvka okys 6 d{k gAvfrfFk iDDrkva ds d{kka dks l qTtrhdj.k o ejEer vkfn dj; yh x; h gS rFkk l Hkh ea Vh0oh0 vkfn dh 0; oLFkk Hkh dj nh x; h gA
- 11- Hkktuky; A
- 12- vf/kdkfj; ka@depkfj; ka gsrq vkokl h; l fpo/kkAvf/kdkfj; ka@depkfj; ka ds fy; s miyc/k vkokl ka dh vko'; d ejEer Hkh dj; yh x; h gA

**i qrdky;**

bl l LFkku dh LFkki uk ds ckn jkexack ifj; kstuk] fl pkbz foHkx dk i qrdky; bl l LFkku ea LFkkukUrfjr fd; k x; kA i qrdky; ea yxHkx 15 gtkj i qrdka , oarduhdh if=dkvka dk l xg gA buea vf/kdk'ka i qrdka if=dk; a jkexack ifj; kstuk ds fuekZk dky dh gA ; g i qrdka vfhk; kf=cdh] y[kk] ekufodh] jkexack ifj; kstuk fji kV/ vkfn fo'k; ka l s l Ecf/kr gA ipfyr vkbD, l OdKM vkfn dh i qrdka Hkh bl i qrdky; ea miyc/k gA

**l dk;**

l LFkku ea Lohdr inka dk foj.k fuEufyf[kr gA

dakd	l nuke	Lohdr in
1	funskd%ed; vfhk; rk Lrj&2%	1
2	vfrfjDr funskd	1
3	, l ksl ; v/ i kQd j	1
4	v/kh{k.k vfhk; rk%; kf=d%	1
5	vf l LVSV i kQd j@ mi funskd@ vf/k' kkl h vfhk; rk	9
6	Okj"B y[ kkf/kdkjh	1
7	Lkgk; d y[ kkf/kdkjh	1
	; ksx	15

**i nLFkki uk l Ecu/h 0; oLFk**

l LFkku ds l eLr inka dks 'kkl uknsk l @ 1555&nks@81&23&fl @2&109@80] fnukd 4&7&81 }kjk fu% dxh? 'kks'kr fd; k x; k gA bl l Li"V gSfd l LFkku ds in fdl h foHkx fo'kks ds l dxh? in ugha gS rFkk ; g l LFkku izkkl fud l ykgdkj l febr }kjk utfr fu/kkz.k ds QyLo: lk 'kkl u ds l fpo 1/1 pkbz ds izkkl fud fu; .k ea gA

I ddk; ea inLFkki uk 'kkl u ds l Ecf/kr i z kkl fud foHkxka }kjk l h/ks gh l h.Fkku ea i kjEi fjd : lk l s fuEuor dh tkrh jgh g&

dækd	Inuke	Lohdr in
	<b>fl pkbZfoHkx</b>	
1	fun'skd@ed; vfhk; ark%l foy Lrj&2%	1
2	, l kfl ; v i kQl j@v/kh{k.k vfhk; ark%l foy%	1
3	v/kh{k.k vfhk; ark % kf=d%	1
4	vf/k' kkl h vfhk; ark %l foy%	5
5	vf/k' kkl h vfhk; ark % kf=d%	2
	; kx	10
	<b>Ykd fuekZk foHkx</b>	
1	vi j fun' kd@v/kh{k.k vfhk; ark	1
2	vf/k' kkl h vfhka rk %l foy]fo   r , oa ; kf=d%	2
	; kx	3
	<b>fun'sky ; dkkxkj</b>	
1	Ofkj "B y[ kkf/kdkjh	1
2	Lkgk; d y[ kkf/kdkjh	1
	; kx	2

## vf/k' Bku

I h.Fkku ea ddk; j r dkfeZlka dk foj .k fuEuor~g&

dækd	l eg	Lohdr in
1	d	14
2	[k	2
3	x	32
4	?k	25
	; kx	73

fu; fer dkfeZlka ds vrfjDr 26 dk; j Hkkfjr depkj h rFkk 240 dk; Zfnol l s vf/kd vof/k ds 9 n'ud oru Hkkxh Jfed dk; j r g&



## if'k{k.k 0; oLFk

fl pkbZ foHkx 1/4 fl foy 1/2 fl pkbZ foHkx 1/4 kf=d 1/2 rFkk ykd fuelZk foHkx l s l Ecf/kr if'k{k.k dk iHkkj mi funskd 1/4 fl foy 1/4 mi funskd 1/4 kf=d 1/2 , oa mi funskd 1/4 kf=d 1/2 de'k% ds ikl gA if'k{k.k i k B; de rFkk ml ds l qe l pkyu grq fopkj dj vko'; d uhr fu/kkZjr djus ds fy; s mi jkDr 'kkl uknsk fnaukd 16&3&85 }kjk fuEufyf[kr l ykgdkj l febr dk xBu fd; k x; k g&

- 1- ied[k vfHk; ark] fl pkbZ foHkx v/; {k
- 2- ied[k vfHk; rkj] ykd fuelZk foHkx l nL;
- 3- ed[; vfHk; ark 1/4 fj0 , oa 'kksk 1/2 l nL;
- 4- funskd] vkbDvkbDVh0]fnYyh l nL;
- 5- egky[kkdkj vFkok ukfer vf/kdkjh l nL;
- 6- funskd] insh; vfHk; ark if'k{k.k l LFku]dky kx<A l nL; l fpo

## if'k{k.k iB; de

l LFku }kjk fl pkbZ foHkx 1/4 fl foy , oa ; kf=d 1/2 ds uofu; Dr@i kbur rFkk ykd fuelZk foHkx 1/4 fl foy rFkk fo | q@; kf=d 1/2 ds uofu; Dr l gk; d vfHk; arkvka ds if'k{k.k grq fuEufyf[kr fooj.k ds vuq kj i k B; de vk; kstr fd; s tkrsg&

	foHkx	uofu; Dr @i kbur	i k B; de	vof/k	dky kx< ea if'k{k.k dh vof/k	v/; = if'k{k.k
1	fl pkbZ foHkx	uofu; Dr l gk; d vfHk; Urk	vf/k' Bku	, d o'k	3 1/2 ekg	okYeh y[kuA vk[kyk&3 ekg ifjdYi : Mdh 1 1/2 QhYM if'k0&4 ekg
2	fl pkbZ foHkx	i kbur l gk; d vfHk; Urk	vk/kkj Hkar	rhu ekg	1 1/2 ekg	okYeh y[kuA 1 1/2 ekg
3	fl pkbZ foHkx	i kbur voj vfHk; Urk ; kW mOi D	vk/kkj Hkar	rhu ekg	rhu ekg	&
4	ykd fuelZk foHkx	uofu; Dr l gk; d vfHk; ark	vk/kkj Hkar	rhu ekg	3 ekg	&
5	fl pkbZ foHkx	uofu; Dr	vk/kkj Hkar	12 l lrg	9 l lrg	1 l lrg ifjdYi : Mdh ea 2 l lrg [k.Mh; dk; k; y; es
7	ykd fuelZk foHkx	uofu; Dr dfu- vfHk-	vk/kkj Hkar	12 l lrg	9 l lrg	3 l lrg izkkl u vdkneh] uShrky

lkf'k{k.k ds vUr eafyf[kr i jh{k rFkk l k{kRdkj dk vk; kstr fd; k tkrk gA

fofHkUu rdudh fo"K; kys[kk o vf/k"Bku l EclU/kh fo"K; ka ij dk; jr e/; Lrjh; rFkk mPp&Lrjh; vf/kdkfj; ka ds fy; s i R; kLej.k i kB; deka }kj k i f'k{k.k inku djus dh Hkh 0; oLFkk dh tkrh gā; s i kB; de ik; %1 l s7 fnol dh vof/k ds gks gā

**vuq ōkku , oafu; kstu e.My] i qōkl ½ i "kykd] \_f'kdsK**

vuq ōkku , oafu; kstu e.My] \_f'kds'k] fl pkbZ foHkx ds i'kkl fud fu; æ.k ea gSA pfid foxr vuq o'kka l s vuq ōkku , oafu; kstu l EclU/kh dk; Z dUn i k; %fd; s x; s gā vr%bl e.My dks Vh0, pOMh0 l h0 ds vUrxZ fVgjh ckak ifj; kstuk ds fuekZk Lo#i rFkk tyk"K; dh l hek ea vk jgs LFky@c l ki V dks vl; mfpr LFkkU ij LFkkukUrfjr djus gsrq i qōkl l EclU/kh dk; Z fn; s x; s gā i qōkl l EclU/kh l Hkh dk; Z bl e.My ds v/khu gā ftudk vuqo.k , ofi Ø; kko; u Vh0, pOMh0- l h0 rFkk "kkl u }kj k l h?ksgh n[kk tk jgk gSA

## **HISTORY OF IRRIGATION DEPARTMENT**

### **PRE INDEPENDENCE**

The activities of the Irrigation Department in this State date as far back as the year 1823 when the first Irrigation office was opened at Saharanpur for the remodeling of the old Moghul Canal on the left bank of Yamuna River. The Canal was put into commission under the name of the Eastern Yamuna Canal in the year 1830. Subsequently, construction of the Ganga Canal was taken up in the year 1840 and it was ready in the year 1854. These two major works were constructed by the East India Company administration and was executed by army engineers under the superintendence of a board constituted for this purpose. The benefits from the Irrigation works were soon realized and good revenues were earned on the invested capital. These works, were therefore, followed by the commissioning of the Agra canal in the year 1874 and the Lower Ganga Canal in 1878.

The unprecedented famine of 1887, which took a heavy toll of life in Bundelkhand, gave a new turn to the activities of the Department. State resources were found altogether inadequate to control its devastating effects. A Famine commission was set up in the year 1880 to find out ways and means to stop recurrence of such calamities. The Commission strongly recommended the provision of adequate Irrigation facilities so as to cover 40 % of the cultivated area of the State. Accordingly, a beginning was made with the Betwa Canal opened in 1885 to irrigate in Jalaun and Hamirpur districts. The project was executed under the direction of the Central Public Works Department by the Chief Engineer, Irrigation Branch of the then provincial P.W.D. who was also Secretary to the Government. The Second Famine Commission of 1903 also reiterated the necessity of having cultivated area covered by Irrigation facilities to the same extent as recommended earlier. The provision of these facilities in the southern part of the State was, therefore, continued with the opening of ken canal in Banda district in 1907. Dhasan canal in Hamirpur district in 1910 and garai and Ghaghar canals in Mirzapur district in the years 1915 and 1916. On the recommendation of the second Famine commission, a project for providing irrigation facilities to the central part of the State by the Sarda canal system emanating from Sarda river near Banbasa in district Nainital adjacent to the Indo-Nepal border to the north of Pilibhit was prepared. For some time, the project became a subject of great controversy between the government and taluqdars of Avadh through whose estates the canal system was proposed to pass. But the construction of the canal was taken in hand in 1919. The work was entrusted to a Chief Engineer-cum-Joint Secretary to the Government and three Superintending Engineers, each heading a Circle, and was opened for irrigation in 1928. Besides the fact that the department yielded a substantial revenue to the government, its greatest utility had begun to be felt by then the general peasantry in the protection that its works

afforded against famine. The department at that time consisted of six Circles with two permanent Chief Engineers. Superior officers manning the department belonged to the Indian Service of Engineers controlled by the Secretary of the State for India in England. The recruitment to this service for the erstwhile Province was stopped after 1930 in pursuance of the recommendations of the Lee Commission set up in 1920. In the following years, engineer officers were recruited in the U. P. Service of Engineers.

The utilization of falls of the upper Ganga Canal, for generation of power which had been visualised much earlier was started in the year 1913, when a pilot Power station was constructed at bahadrabad (near Hardwar) to help in the construction of the permanent head-works for the canal at Hardwar. Of the thirteen falls in its first 180 miles course, nine were harnessed for production of electric energy between the years 1928 and 1940, seven power stations out of which were inter-connected along with two steam power stations at Chandausi and Harduaganj in the Ganga Grid. The availability of cheap electric power also opened up way for construction of tubewells, which commenced in 1930 in Meerut district and was extended to other western districts covered by the Ganga Grid. This also included the system of pumped canals which utilized hydro-electric power. The Steam Power Station at Sohawal in district Faizabad was set up in 1939 mainly to supply electric power for the pumped canal from the river Ghaghra for the eastern Uttar Pradesh. A separate Hydro-electric wing, commonly known as "Hydel" was set up in the Department for the purpose under a separate Chief Engineer assisted by two Superintending Engineer, one for Hydro electric power generation and transmission and other for construction of tube-wells and pumped canals.

## **POST INDEPENDENCE**

The activities of the Irrigation Department were accelerated after the second World War in 1945, when considerable emphasis was laid on the execution of Grow More Food schemes and investigation of new power projects for agricultural and industrial development of the State. The important Irrigation and Power projects taken up for investigation were Nayar and Ramganga Dams in Garhwal district, Yamuna Scheme in Dehradun, Rihand dam in Mirzapur, Matatila dam in Jhansi and several other schemes of smaller magnitude scattered all over the State. Work on the construction of Mohammedpur Power House of the Ganga Canal near Roorkee, Khatima Power House on the Sarda Canal near Pilibhit, Yamuna Hydro electric Scheme near Dehradun and Rohin and Danda Canals in Gorakhpur districts, which had been investigated earlier also, commenced in the post war period, with the addition of the third post of Chief Engineer (Development) in 1946-47. The benefits of the State irrigation works were, however, confirmed mainly to the western, southern and central parts of the State where the sale of water yielded a substantially

good return on the capital investment made by Government. This purely commercial policy underwent a radical change after Independence, when the Govt. expanded the activities of the department for the welfare of the peasantry and overall development of the country by liberally investing capital in irrigation projects with out rigid adherence to the financial returns.

The necessity for research in irrigation works was felt as early as in 1932 but the need for properly organized research came to the fore in 1946, since there were increasing problems of design and construction of high dams, barrages, power houses and other works in the post- war period. The organization was, therefore, expanded in 1949 into an institute at Roorkee, under the charge of the Director of the rank of Superintending Engineer. The same year a separate food production organization was created to look after the construction of urgent Grow More Food Schemes in Bundelkhand and central regions of the State, under the charge of a fourth Chief Engineer Food Production, with two Superintending Engineers under him. This organization worked independently of the Irrigation Department till 1952 when it was merged into it. The Hydrel Wing of the irrigation department was, however, separated in 1950 to form a new electricity department of the State under the Charge of the Chief Engineer.

The Irrigation Department was also entrusted in 1954 with flood protection works, which had assumed considerable importance and high priority due to devastation caused by floods. Important works completed in this sphere of activity were construction of marginal embankments, flood shelters, raising of villages above high flood level and protection of cities and towns like Varanasi, Allahabad, Ayodhya, Rajapur, Ballia, Ajamgarh, Gorakhpur and Badri Nath by construction of spurs and pitching the banks of rivers.

There used to be an Agricultural Engineering Section under the Agriculture Department of the State Government for helping cultivators in boring the Tube wells and construction of open wells for Irrigation purposes, tractorization of land to make it cultivable and also manufacturing and repairing agricultural tools, pumping sets, tractors, etc. Government felt that the work of agricultural Engineering Section could be better handled in the irrigation department instead of in the agriculture department. Consequently the agricultural engineering section with its workshops at Jhansi, Bareilly and Meerut was merged into the Irrigation Department in the year 1952. Later in 1955, the Government workshop in Roorkee, which operated under the industries department of the State Govt., was also transferred to the Irrigation Department. These workshops now function under the control of the Superintending Engineer, Irrigation Workshops Circle, Kanpur. The director of industries, U.P. has standing instructions that indents for manufacture of heavy parts of machines,

bridges, pontoons, barges and other miscellaneous engineering jobs should be referred to the Superintending Engineer at Kanpur.

The Rihand Dam Construction Circle which was opened in 1948 and which had to be closed in 1951 due to paucity of funds was reopened in 1955. Civil Works of the Rihand dam Hydro-electric Project costing about Rs. 28 crores were completed by the end of 1961.

At the conclusion of the 2nd Five Year Plan in 1961, a careful assessment of the working of the Department, vis-à-vis the plan schemes was undertaken with a view to ensuring a greater measure of efficiency in the execution of future schemes. The study revealed that the following measures were called for in connection with the implementation of further programmes which required the irrigation department to carry out works to the tune of Rs. 120 crores ( including the civil works of the Hydro-electric and thermal power projects in the State costing about Rs. 40 crores):

1. Setting up of a Central Design Directorate with Headquarters at Lucknow.
2. Setting up of a Central organization for co-ordination in procurement of store and equipment required for major works with headquarters at Lucknow.
3. Creation of a post of Chief Project Engineer for each major project.
4. Creation of a post of Engineer-in-Chief in the Irrigation Department for river valley projects in the State and for dealing with the major problems of the Department.
5. Creation of a post of Liaison Officer at New Delhi in the connection with the releases of foreign exchange and import licenses essentially required for projects.
6. Improvements in the system of recruitment and training of Engineering Personnel and also their service condition through steps such as increasing pay scales restoring All India Service of Engineers and increasing the permanent cadre.

With a view to investigating into and reporting on the problems of Irrigation Development in Uttar Pradesh, Govt. constituted with effect from September 1, 1966 an Irrigation Commission for Uttar Pradesh with head quarters at Lucknow under the Chairmanship of Sh. Phool Singh, M.L.A., with a Superintending Engineer and as a whole time Secretary of the Commission. The commission was, however, dissolved soon afterwards in May, 1967.

The waters of the big rivers in the State, like the Ganga, Yamuna and Sarda, have been mostly diverted into gravity canals by construction of weirs and barrages. The completion of Gandak Project and construction of the barrage at Balmikinagar

will also provide ample irrigation facilities through the net work of the Gandak Canal System in the districts of Gorakhpur and Deoria. Another mighty river, the Ghaghra, is also being tapped for irrigation needs and its canal system will cover vast areas in the eastern part of the state. Even though the irrigation potential of all these works increased from 75 lakh acres in pre-Plan period to 127.7 lakh acres in July, 1969, the demand for irrigation water has been increasing at a rapid rate due to introduction of high yielding varieties and cultivation of new areas. The eastern parts of the state are, however, at the tail end of the Sarda canal and lower Ganga canal systems and have chronic shortage of water, while the regions in the Bundelkhand have limited irrigation resources due to lesser non-monsoon discharges in the rivers. The irrigation canals in Bundelkhand are fed mostly by small storage dams and reservoirs and thus are dependent on rainfall every year. With a view to providing additional irrigation facilities and increasing agricultural production, a separate organization for looking after the construction and operation of all State tube-wells under a Director of tube-wells was set up in the mean time with effect from July 31, 1965; and as already dealt with in Chapter 8.2, though the Directorate is under the administrative control of irrigation department, the director functions under the operational control of the Commissioner, Agricultural Production and Rural Development, U.P. The existing sources of irrigation, including the tube-wells, were however, found inadequate to serve the vast areas of the eastern districts and the Bundelkhand region, when they were in the grip of severe drought in 1966 and subsequent years-the worst hit being Mirzapur, Allahabad, Banda, Ghazipur, Varanasi and Azamgarh. Fortunately, perennial supplies were available in the big rivers flowing in these areas, but these had to be lifted by pumps in order to irrigate the areas adjacent to the banks of those rivers and streams. It was with this idea that lift irrigation schemes were taken up in October, 1966, as an emergency measure to fight the unprecedented drought conditions. Though a small number of pump canals were operating for quite sometime through fixed electrical pumping stations, the State Govt. started operating over a thousand 5-10 H.P. diesel pumping sets for lifting water from lakes and rivers in the drought-affected districts to help the hard hit farmers. Subsequently, some of these small sets and a few larger sets were used, and because of the very short time in which canals could be put into operation and the small capital cost-Rs. 200 per irrigated acre against Rs. 500 or more required for providing similar irrigation by conventional sources- it was decided to divert substantial sources for construction of lift canals. A Directorate of Lift Irrigation was created in February, 1968, within the irrigation department and separate staff was provided in the field for investigation and construction of such works. The scheme was greatly welcomed by cultivators as it provided them with immediate relief at a very low cost. The popularity of these canals and the persistent demand of the cultivators for more such canals encouraged the Govt. to take up more schemes later and it is proposed to tap more than 50 percent of the perennial flow in the rivers and streams in the eastern parts of the State through these canals during the Fourth Plan. In order to reduce the period of

construction of lift schemes and economise on capital expenditure, diesel pumps, which are costlier to maintain, were replaced by electric pumps, wherever possible, and a more permanent shape was given to the schemes by construction of small canal systems. Later, the electrical pumps, motors, and other ancillary equipment for these schemes were mounted on floating barges on the river banks, with flexible delivery pipe connections providing for the variation in the level of river during different parts of the year. The great advantage of such stations is that they do away with the need for very costly conventional type of fixed and intricate pumping stations requiring a long time in their construction and river-training works associated with them. The construction of these floating pumping stations is completed within a working season, i.e., within about eight months only, (smaller diesel schemes take about two or three months and electrical schemes take about four to six months) and the low cost of the scheme can be judged from the fact that the capital cost of providing intensive irrigation from this improved system near about a river works out even to less than Rs. 150 per acre. The whole scheme is planned to provide, within the State's limited resources, irrigation facilities through new channels or through existing branches of canals (which owing to shortage of water have been found occasionally to be uncertain sources of irrigation) according to the needs of the farmer for the present day agriculture, involving multiple cropping and high yielding varieties of crops, thus making available intensive year-round irrigation to thousands of acres of cultivable land. Some important lift-irrigation schemes taken up initially were the Sakhaura Pump Canal from river Ganga in Mirzapur town; Dalmau Pumped Canal scheme on the river Ganga in Rae Bareli district; Bhopauli Pumped Canal scheme on the river Ganga in Varanasi district; Zamania Pumped Canal scheme on Ganga in Ghazipur district and the Tons Pumped Canal schemes on the river Tons in Allahabad district. More such schemes in the eastern parts of the State and Bundelkhand region are contemplated, as resources permit.

The main functions of the Irrigation Department, in short, are to deal with the matters relating to :

- (a) Utilization of water resources of the State for the purpose of irrigation by means of canals, tube-wells, dams, bundhies, etc.
- (b) Utilization of water resources of the State for power development.
- (c) Flood control in rivers, improvement of drainages, removal of water logging and training of rivers for protection of towns.
- (d) Assessment of irrigation revenue and collection of miscellaneous revenue accruing from canals.

The Irrigation Branch of the Public Works Department was, as has been mentioned already, initially under the administrative charge of a Chief Engineer who was also Secretary to Govt. The 'Reforms' introduced through the Govt. of India Act,



1919, had no effect whatsoever on this Branch and "Irrigation" continued to be a 'reserved' subject under purely official administration of the Finance Member of the Governor's Executive Council, until the position was changed materially by provincial autonomy under the Govt. of India Act, 1935 when the set-up of the Branch underwent a change and the functions of the Chief Engineer as head of department were separated from those of the Secretary to Government. This resulted in formation of a "Public Works Secretariat" in 1938 by amalgamating the 'Buildings and Roads' and the 'Irrigation' Branches under a common non-technical Secretary to Government. In 1954, the nomenclature of the Branch was changed-the Buildings and Roads Branch was named as Public Works Department and the Irrigation Branch was named as Irrigation Department, the Hydro-electric Wing having been separated earlier in 1950 to form the Power Department at the Secretariat level and Electricity Department at the level of Chief Engineer".

The portfolio of the Department is held by the minister for Irrigation and Power. The Secretariat staff comprises of :

Secretary, Irrigation and Power Departments	1
Joint Secretary, Irrigation and Power	1
Deputy Secretary, Irrigation	1
Assistant Secretary	2
Superintendent	4

For State Tube-wells, Irrigation Department at the Secretariat continues to be the administrative department, but the Commissioner and Secretary, Agricultural Production and Rural Development is, as mentioned earlier in Chapter 8.2 in overall charge and for that purpose Secretary and Joint Secretary, Irrigation and Power Departments also function as Special Secretary and Joint Secretary respectively in the Agricultural Production and Rural Development Department.

The Secretariat Department has four Sections, each dealing with subjects given below :

Irrigation (A) Department : It deals primarily with the establishment matters of gazetted staff of the Department, change of headquarters and reorganization of Circles and Divisions and financial irregularities.

Irrigation (B) Department : It is primarily a Works Section dealing with irrigation schemes, famine control programmes, irrigation rates and betterment levy on land benefited by irrigation works.

Irrigation (C) Department : It is also mainly a Works Section dealing with tube-wells, flood control measures, drainage improvement schemes and departmental workshops.

Irrigation (D) Department : It deals with establishment matters of subordinate gazetted and non-gazetted staff of the Department, work relating to the Irrigation Research Institute, Roorkee and research schemes, etc.

Technical Audit Cell for Irrigation Department at the Secretariat. This Cell was set up in September, 1964 on the pattern of a similar cell in the Public Works Department, for securing good quality in works, economy in expenditure and ensuring better technical and financial control on works in the Department. The Cell is manned by a Chief Technical Examiner of the rank of Superintending Engineer and assisted by two Technical Examiner of the rank of Superintending Engineer and assisted by two Technical Examiners and two Assistant Technical Examiners of the rank of Executive Engineer and Assistant Engineer respectively.

## **HEADQUARTERS ORGANIZATION**

The Chief Engineer, Irrigation Department, is the administrative and professional head of the Department and is responsible to the Government for its efficient working. He shares his duties with three Additional Chief Engineers—one designated as Addl. C.E. (Ganga), the second as Addl. C.E. (Sarda) and the third as Addl. C.E. (Investigation and Planning).” In view of the magnitude of development work, a post of Engineer-in-Chief for the Department was created in March, 1961 for dealing with multi-purpose projects and civil works of ‘Hydel’ and thermal power projects. He exercised supervision over the gazetted establishment of the Department and advised in farming broad policies and in solving intricate technical problems. The post of Engineer-in-Chief was, however, abolished in September, 1966. The headquarters of the Chief Engineer and Additional Chief Engineers are at Lucknow and they have a common office. They are assisted in their work by nine Personal Assistants of the rank of Executive Engineer and one Personal Assistant drawn from ministerial establishment- three designated as P.A. (Establishment), and one each as Personal Assistant (West), Personal Assistant (East), Personal Assistant (Sarda), Personal Assistant (Floods), Personal Assistant (Planning), Personal Assistant (Budget) and Personal Assistant (Ministerial), the latter to look after miscellaneous matters and work relating to cash transactions of the headquarters office. There is also a Senior Accounts Officer and a Special Land Acquisition Officer. The work in the headquarters office is distributed into various sections- dealing with Works, Establishment, Accounts, Budgets, Land Acquisition, Planning and Community Projects, etc. Special agreements are sometimes made in

the office of the Board of Revenue, Uttar Pradesh, for acquisition of and for major projects, as in the case of Gandak Project.

Considering the importance of minor irrigation works in increasing the agricultural production in the State, the Govt. created with effect from July 31, 1965, a post of Director of Tubewells for looking after the construction and operation of all State Tube-wells, as were formerly looked after by the Chief-Engineer, Irrigation. The Director of Tube-wells, who is of the rank of a Superintending Engineer, functions under the control of the Commissioner for Agricultural Production and Rural Development. In all matters connected with tube-wells, the Director exercises powers of a Chief-Engineer. A Personal Assistant of the rank of Executive Engineer assists him in his work at the headquarters office, which continues to form part of the office of the Chief-Engineer, Irrigation. A Directorate of Lift Irrigation was also similarly created on February 6, 1968 with a Director of the rank of a Superintending Engineer with powers of a Chief Engineer, who has the help at his headquarters office of an Executive Engineer. The work of Lift Irrigation is distributed amongst three operational Circle offices.

The headquarters organization also includes the following :-

- (i) The Central Design Directorate, set up during 1960-61 at Lucknow, for carrying out the designs of highly complicated irrigation and power projects. The Director of the organization is of the rank of Superintending Engineer. He is assisted by three other Superintending Engineers; one Executive Engineer, Coordinating and Checking Division, and 24 other officers of the rank of Executive Engineer along with about 100 Assistant Engineers.
- (ii) The Central Equipment and Stores Purchase Organization at Lucknow set up in the year 1962 under a Superintending Engineer who is assisted by two Executive Engineers and a few Assistant Engineers.

Chief Project Engineers of the rank of Additional Chief Engineer, one each for Yamuna Valley Development Project and Ramganga River Project with headquarters at Dehradun and Kalagarh (District Bijnor) (formerly at Moradabad) respectively were posted in 1962, with administrative, technical and financial powers of Chief Engineer for speedy work, with one Personal Assistant each of the rank of Executive Engineer to assist them in their work. They correspond direct with the Govt. and have separate offices. There is also a Director of Construction of the rank of a Superintending Engineer, a Financial Advisor and a Senior Accounts Officer for the Ramganga River Project at Kalagarh. An Irrigation Research Institute functions under a Director at Roorkee, who is under the over-all charge of Additional Chief Engineer (Yamuna).

## **REGIONAL OFFICES AND FIELD ORGANIZATION**

The administrative unit of the department is a Circle under the charge of a Superintending Engineer, who is responsible to the Chief Engineer for administration and general professional control of Irrigation works within his Circle. The work of planning and investigation of future irrigation and multipurpose projects is done by Investigation and Planning Circles. Each circle is divided into four or five Divisions. Each under the charge of an Executive Engineer, known as Divisional Officer, who is responsible to the Superintending Engineer for execution and management of all works within his Division. The Executive Engineer is also responsible for assessment of water rates and for sending demand statements to Collectors of districts for realization of irrigation charges. In this work, he is assisted by a Deputy Revenue Officer whose main duties are framing of *Osrabandi*, checking of irrigation measurements, supervision of revenue assessment and trying court cases under the Northern India Canal and Drainage Act for which he is vested with magisterial power to impose fine not exceeding Rs. 50 or imprisonment not exceeding one month, or both, in each case for breach of rules under the Act.

Maintenance and construction Divisions are divided in-to Sub-divisions, each in charge, each in charge of an Assistant Engineer, known also as a Sub-divisional Officer, known also as a Sub-divisional officer, who is responsible to the Executive Engineer for management and execution of works in his Sub-division in maintenance Divisions, he also looks after general supervision of irrigation and revenue work in his S. The Sub-divisions are divided into sections each in charge of an Overseer in Civil Sub-Divisions. For, revenue work, a division is divided into a number of Ziledaris, the boundaries of which usually coincide with those of Sub-divisions. Each Ziledari is under the charge of a Ziledar who is under the control of the Deputy Revenue Officer in revenue matters and under a Sub-Divisional Officer for distribution of water and other matters and is assisted by Amins and Patrols.

## **CONTROL BOARDS AND COMMITEES**

Control Boards are set up by the Govt. from time to time to cut out avoidable delays in routine procedures whenever major projects are taken up in hand. Rihand Dam Control Board consisting of various members representing the Union Ministries of Irrigation and Power and Finance, Central Water and Power Commission, Planning Commission and State Finance and Irrigation and Power Departments was set up in 1954. The Chief Minister of the State was its Chairman. The Board was empowered to finally dispose of all matters relating to Rihand Project requiring orders of the Government. A Superintending Engineer pf Irrigation Department was secretary of the Board who was also designated as ex-officio Joint Secretary to Government in the Irrigation and Power Departments. The Board was, however

abolished early in 1963, when all the works connected with the Rihand Dam had nearly been completed. The existing boards are:-

1. *Ram Ganga Control Board*:- This Board was set up in May, 1962. The organizations and functions of the board are almost similar to those of the Rihand Dam Control Board. The Chairman of the Board is the Chief Minister of the State, with a whole-time Secretary of the rank of a Superintending Engineer with Headquarters at Lucknow.
2. *Gandak Control Board*:- Gandak Canal Project is a joint project being executed by the States of Bihar and Uttar Pradesh. It was taken up in the third five year Plan. The headworks consisting of a barrage, lie in Nepal, but the western Gandak Canal after running for about twelve miles in Nepal Territory passé through Uttar Pradesh for another 69 miles, before it enters Bihar for irrigation of land in that State. The cost of the works to be constructed by Uttar Pradesh Govt. is approximately Rs. 54 crores. As the major part of the Project , including the barrage in the Nepal territory, is to be constructed by the Bihar Govt., this control board has been set up by the Govt. of India under the Chairmanship of the Governor of Bihar. While the board has the usual members from the Govt. of India, this state is represented on it by the Minister of Irrigation; Secretary, Irrigation and Power; Chief Engineer, Irrigation Department; Commissioner and Agricultural Production and Rural Development and Secretary, Finance Department.
3. *State Flood Control Board*:- The State Flood Control Board was constituted by the state on September 11, 1954, for tackling the emergent situation created by the disastrous floods of 1954 and to deal with questions of policy in connection with flood control works. The control board is composed of the Chief Minister as its Chairman and several members representing various concerned departments of the State Govt. including the Deputy Minister for Irrigation and Chief Engineer, Ganga Basin, of the Union Ministry of Irrigation and Power. An Executive Engineer of the Irrigation Department acts as Secretary of the Board who is also designated as ex-officio Deputy Secretary to Govt. in the Irrigation Department. The State Flood Control Board is assisted by a Technical Sub-Committee which consists of all the Chief Engineers of the Irrigation Department; Chief Engineer, Public Works Department, and a representative each of the Central Water and Power Commission and the Railway Ministry. All flood control schemes proposed to be executed are examined and approved by this Technical Sub-Committee, before they are put up to the State Board for final sanction.

There is a standing committee of the legislature for looking into the needs for irrigation facilities and other matters connected therewith in the interest of the

cultivators, such as short supply of water, construction of bridges over drains and channels, removal of water-logging etc. The committee is required to meet twice a year under the Chairmanship of Minister for Irrigation.

Regular meetings and conferences are also held to discuss matters concerning supply of water from canals and tube-wells to cultivators and other connected problems in which the officers of the Irrigation, Community Development and the Agriculture Departments meet at the zonal, district and Block levels. For speedy implementation of Plan schemes, conferences of Superintending Engineers are called at Lucknow once or twice a year to discuss policies and programmes of departmental works. For proper utilization of available irrigation facilities, an irrigation advisory committee was constituted in each district in June, 1961 under the Chairmanship of the district Magistrate with the Adhyaksh, Zila Parishad: all M.L.As, M.L.Cs and M.Ps of the district: Sub-divisional Officers, District Planning Officer, District Agriculture Officer and engineer officers of irrigation department as members, and with one of the Executive Engineers or Assistant Engineers as its Secretary. The main functions of the committee are to review the progress of Plan projects, to consider people's problems and difficulties relating to irrigation, to scrutinize all new proposals of drainage, to deal with complaints in respect of existing drainage channels, to consider all matters relating to the proper functioning of Osrabandis, to ensure maximum utilization of the departmental resources on occasions of floods and water-logging and to evolve and enforce appropriate crop patterns in irrigated areas with a view to giving a fillip to Grow-More Food schemes.

## **ACT MANUALS AND RULES**

### **I-Acts**

1. *Northern India Canal and Drainage Act, 1873.* This Central Act and the rules made there-under provide for the regulation of irrigation, navigation and drainage in the State for public purposes. They deal with the procedure for construction and maintenance of works, canal navigation, drainage and supply of water and rates therefore. While additional Irrigation Potential was being created gradually with the completion of the Five Year Plan, it was experienced that the potential, so created was not being utilized by cultivators fully. One of the reasons for this lag in utilization of the potential was the reluctance of the cultivators to construct water-courses for conveying water from the State irrigation works to their fields. Construction of these water-courses was the responsibility of the cultivators and not of the State Irrigation Department. As the main Act has no provision under which cultivators could be forced or persuaded to take up their construction in time, the Govt. took powers under the Northern India Canal and drainage ( U.P. Amendment ) Act, 1963 to undertake construction of water courses on behalf of cultivators on

failure of the *Gaon Sabhas* to do so themselves and to recover the cost from the beneficiaries in installment.

2. *The U.P. Minor Irrigation Works Act, 1920.* This State Act provides for the construction, improvement and maintenance of irrigation works on a smaller scale than that contemplated by the provisions of the Northern India Canal and Drainage Act, 1873.

3. *State Tubewells Act, 1936.* This State Act provides for the construction, improvement and maintenance of the State tube-wells irrigation works.

## **II-Manuals and other publications**

1. Irrigation Manual of Orders.
2. Manual of Professional Orders.
3. Instruction on Repairs.
4. Instruction on Accounts.
5. U.P. Irrigation Departments Detailed Specifications (1954).
6. Rahnumai Abpashi.

## **CIRCLES AND DIVISIONS OF IRRIGATION DEPARTMENT**(As on June 1, 1969)

A. Regular Irrigation Circles (both for maintenance and construction works).

I. First Circle, Irrigation Works, Meerut

1. Northern Divisions, Ganga Canal, Roorkee.
2. Upper Division, Eastern Yamuna Canal, Saharanpur.
3. Lower Division, Eastern Yamuna Canal Muzaffarnagar.
4. Meerut Division, Ganga, Ganga Canal, Meerut.

II. Second Circle, Irrigation Works, Kanpur

1. Kanpur Division, Lower Ganga Canal, Kanpur.
2. Fatehpur Division, Lower Ganga Canal, Fatehpur.
3. Etawah Division, Lower Ganga Canal, Etawah.
4. Bhogpur Division, Lower Ganga Canal, Etawah.

III. Third Circle, Irrigation Works, Agra

1. Upper Division, Agra Canal, Mathura.
2. Lower Division, Agra Canal, Agra.
3. Maat Branch Division, Ganga Canal, Mathura.

IV. Fourth Circle, Irrigation Works, Jhansi.

1. Jhansi Division, Betwa Canal, Jhansi.
2. Betwa Canal Division, Orai.
3. Saprar Division, Jhansi
4. Matatila Dam Division, Jhansi.
5. Jamni Dam Division, Lalitpur, Jhansi.

V. Fifth Circle, Irrigation Works, Bareilly.

1. Rohilkhand Canals Division, Bareilly.
2. Afzalgarh Irrigation Division, Moradabad.
3. Head-works Division, Sarda Canal, Bareilly.
4. Civil Construction Division, Bareilly.
5. Baigul Reservoir Division, Bareilly.

VI. Sixth Circle, Irrigation Works, Lucknow

1. Sitapur Division, Sarda Canal, Sitapur.
2. Lucknow Division, Sarda Canal, Lucknow.
3. Barabanki Division, Sarda canal, Barabanki.
4. Shahjahanpur Division, Sarda canal, Shahjahanpur.
5. Irrigation Division, Sultanpur.

VII. Seventh Circle, Irrigation Works, Rae Bareli

1. Unnao Division, Sarda Canal, Unnao.
2. Irrigation Division, Pratapgarh.
3. Irrigation Division, Jaunpur.
4. Hardoi Division, Sarda Canal, Hardoi.

VIII. Eighth Circle, Irrigation Works, Lucknow (With two Superintending Engineers)

1. Sarda Sahayak Yojna Division, Sitapur.
2. Sarda Sahayak Yojna Division, Bahraich.

B. Irrigation Works Circle mainly for construction works.

I. Irrigation Works Circle, Allahabad

1. Ken Canal Division, Banda.
2. Belan Canal Division, Allahabad.
3. Sirsi Dam Division, Mirzapur.
4. Irrigation Division, Banda.
5. Irrigation Division, Mahoba.

II. Irrigation Works Circle, Faizabad

1. Tubewell Division, Faizabad.
2. Irrigation Division, Faizabad.
3. Irrigation Division, Gonda.
4. Tubewell Division, Bahraich.
5. Tubewell Division, Lucknow.

III. Irrigation Works Circle, Gorakhpur

1. Irrigation Division, First, Deoria.



2. Irrigation Division, Second, Deoria.
3. Tubewell Division, Gorakhpur.
4. Tubewell Division, Basti.
5. Tubewell Division, Azamgarh.

IV. Irrigation Works Circle, Varanasi

1. Chandraprabha Division, Varanasi.
2. Musakhand Dam Division, Varanasi.
3. Irrigation Division, Ballia.
4. Mirzapur Canals Division, Mirzapur.

V. Irrigation Works Circle, Aligarh.

1. Narora Division, Ganga Canal, Aligarh.
2. Re-modelling Division, Lower ganga canal, Etah.
3. Aligarh Division, Ganga Canal, Aligarh.
4. Bulandshahr Division, Ganga Canal, Bulandshahr.

VI. Irrigation Works Circle, Naini Tal

1. Garhwal Irrigation Division, Landsdowne.
2. Kumaun irrigation Division, Almora.
3. Tarai Irrigation Division, Naini Tal.
4. Irrigation Division, Uttar Kashi.
5. Rampur Canals Division, Rampur.

C. Irrigation Workshops.

Irrigation Workshop Circle, Kanpur

1. Irrigation Workshop, Bareilly.
2. Irrigation Workshop, Roorkee.
3. Irrigation Workshop, Jhansi.
4. Irrigation Workshop, Meerut.
5. Executive Engineer (Designs), Kanpur.

D. Investigation and Planning Circles.

I-Investigation and Planning Circle, Lucknow

1. Investigation and Planning Division, Allahabad.
2. Project and Planning Division, Allahabad.
3. Project and Planning Division, Second, Lucknow.
4. Survey and Investigation Division, Lucknow.

II-Investigation and Planning Circle, Dehradun

1. Investigation and Planning Division, Dehradun (with two Executive Engineers).
2. Investigation and Planning Division, Second, Dehradun.
3. Kishau Dam Planning Division, Dehradun.

E. Central Equipment and Stores Procurement Organization, Lucknow.

Central Equipment and Stores Procurement Organization, Irrigation Department, Lucknow, under a Superintending Engineer with two Executive Engineers.

F. Central Design Directorate, Lucknow (under a Director).

I.- Superintending Engineer (Designs I)

II- Superintending Engineer (Designs II)

III- Superintending Engineer (Designs III)

1. Earth Dam Design Unit I.
2. Earth Dam Design Unit II.
3. Steel Structure and Mechanical Equipment Design Unit I.
4. Steel Structure and Mechanical Equipment Design Unit II.
5. Steel Structure and Mechanical Equipment Design Unit III.
6. Power House Design Unit I.
7. Power House Design Unit II.
8. Power House Design Unit III.
9. Canal Works Design Unit I.
10. Canal Works Design Unit II.
11. Canal Works Design Unit III.
12. Canal Works Design Unit IV.
13. Coordinating and Checking Division.
14. Miscellaneous Design and Standardization Unit.
15. Spill-ways and Outlet Works Design Unit.
16. Major Spill-ways Design Unit.
17. Tunnel Design Unit.
18. Hydrology and Sedimentation Design Unit.
19. Power Project Coordinating and Checking Unit.
20. Masonry Dam and Barrage Design Unit.
21. Pressure Shaft Design Unit.
22. Concrete Dam Design Unit.
23. Architectural Design Unit.
24. Major Project Coordinating and Checking Unit.
25. Safety of Earthen Dam Unit.

G. Ramganga Project, Kalagarh.

I- Works Circle, Kalagarh.

1. Ramganga Dam Division, First, Kalagarh.
2. Ramganga Dam Division, Second, Kalagarh.
3. Ramganga Dam Division, Third, Kalagarh.
4. Personnel Division, Kalagarh.
5. Equipment Division, V, Kalagarh.

II- Workshop Circle, Kalagarh

1. Equipment Division, I, Kalagarh.
2. Procurement Division, II, Kalagarh.

III-Dam Circle, Kalagarh.

1. Equipment Division III, Kalagarh.
2. Equipment Division III, (Additional), Kalagarh.
3. Equipment Division IV, Kalagarh.

IV-Plant Design Circle, Kalagarh

Saddle Dam Division, I, Kalagarh.

V-Inspection and Control Circle, Kalagarh.

Camp Management Division, Kalagarh.

VI- Stores Circle, Kalagarh.

1. Central Stores Division I, Kalagarh.
2. Central Stores Division II, Kalagarh.
3. Central Stores Division III, Kalagarh.
4. Administrative Unit, Kalagarh.

VIII- Feeder Channel Construction Circle, First, Moradabad.

1. Feeder Channel Construction Division, I, Moradabad.
2. Feeder Channel Construction Division, II, Moradabad.
3. Feeder Channel Construction Division, III, Amroha, Moradabad.
4. Earth Moving Improvement Division, Moradabad.

VIII- Feeder Channel Construction Circle, Second, Moradabad.

5. Ramganga Barrage Division, I, Harroli.
6. Ramganga Barrage Division, II, Dhampur.
7. Kho Barrage Division, Dhampur.

IX- Ramganga Channel Construction Circle, Kanpur.

1. Ramganga Channel Construction Division, I, Kanpur.
2. Ramganga Channel Construction Division, II, Kanpur.

3. Ramganga Channel Construction Division, Manipuri.
4. Mainpuri Division, Lower Ganga, Mainpuri.

#### H. Gandak Project, Gorakhpur.

##### I- Gandak canal Construction Circle, First, Gorakhpur.

1. Attached Executive Engineer, Gandak Canal Circle, First, Gorakhpur.
2. Naraini Branch Construction Division, Gorakhpur.
3. Madhubani Branch Construction Division, Gorakhpur.
4. Gandak canal Construction division, Fourth, Gorakhpur.
5. Gandak Canal Construction Division, Ninth, Gorakhpur.

##### II- Gandak Canal Construction Circle, Second, Gorakhpur.

1. Khajuria Branch Construction Division, Deoria.
2. Gandak Canal Construction Division, Second, Deoria.
3. Gandak Canal Construction Division, Third, Gorakhpur.
4. Chaf Branch Construction Division, Deoria.
5. Attached Executive Engineer, Gandak Canal Circle, Second, Gorakhpur.

##### III- Gandak Canal Construction Circle, Third, Gorakhpur.

1. Gandak Canal Construction Division, Fifth, Deoria.
2. Gandak Canal Construction Division, Sixth, Deoria.
3. Gandak Canal Construction Division, Seventh, Gorakhpur.
4. Gandak Canal Construction Division, Eighth, Gorakhpur..

##### IV- Gandak Canal Construction Circle, Fourth, Gorakhpur.

1. Gandak Canal Construction Division, First, Deoria.
2. Gandak Canal Construction Division, Tenth, Gorakhpur..
3. Gandak Canal Construction Division, Eleventh, Gorakhpur..
4. Gandak Canal Construction Division, Twelfth, Deoria.

#### I. Yamuna Project, Dehradun.

##### I- Yamuna Civil Construction Circle, Dehradun

1. Attached Executive Engineer, Yamuna Civil Construction Circle, Dehradun.
- 2 Yamuna Construction Division I, Dehradun.
- 3 Yamuna Construction Division II, Dehradun.
- 4 Test and Control Division, Dak Pathar.
5. Mechanical Equipment and Stores Division, Dehradun
6. Yamuna Construction Division, III, Dehradun.

II- Tons Civil Construction Circle, First, Dehradun.

1. Attached Executive Engineer, Tons Civil Construction Circle First, Dehradun.
2. Koti Colony and Communication Division, Dak Pathar, Dehradun.
3. Tunnel and Power House Division, I, Dak Pathar, Dehradun.
4. Attached Executive Engineer, Tunnel and Power House Division, I, Dak Pathar, Dehradun.

III- Tons Civil Construction Circle, First, Dehradun.

1. Attached Executive Engineer, Tons Civil Construction Circle Second, Dehradun.
2. Tunnel and Power House Division, II, Dehradun.
3. Attached Executive Engineer, Tunnel and Power House Division, II, Dehradun.
4. Dak Pathar Colony and Communication Division, Dehradun.

J. Irrigation Research.

Irrigation Research Institute, Roorkee.

1. Hydraulics Division, I, Roorkee.
2. Hydraulics Division, II, Roorkee.
3. Hydraulics Division, III, Roorkee.
4. Soils (Material & Testing) Division, Roorkee.
5. Ground Water Division, Roorkee.
6. Administrative Division, Roorkee.
7. Basic Research Division, Roorkee.

K. Obra Dam Project and Rihand Dam, Mirzapur District.

Obra Dam Construction Circle, Obra, Mirzapur.

1. Executive Engineer attached to Superintending Engineer.
2. Obra Dam Construction Division, I, Obra.
3. Obra Test and Research Division, Obra.
4. Rihand Dam Civil Division, Pipri, Mirzapur.
5. Obra Thermal Construction Division, III, Obra.

L. Tubewell Circles.

I- Tubewell Circle, Varanasi

1. Tubewell Division, Jaunpur.
2. Tubewell Construction Division, Varanasi.

3. Tubewell Division, Varanasi.
4. Tubewell Division, Ballia.
5. Rigs Division, Varanasi

II- Tubewell Circle, Meerut

1. Tubewell Division (East), Bulandshahr.
2. Tubewell Division, Bijnor.
3. Tubewell Division, Meerut.
4. Tubewell Division, Muzaffarnagar.
5. Tubewell Construction Division, Saharanpur.

III- Tubewell Circle, Aligarh.

1. Tubewell Division (West), Bulandshahr.
2. Tubewell Division, Aligarh.
3. Tubewell Division, Mainpuri.
4. Rigs Division, Aligarh.
5. Tubewell Division, Farrukhabad.

IV- Tubewell Circle, Moradabad.

1. Tubewell Division, Bareilly.
2. Tubewell Division, Moradabad.
3. Tubewell Division, Budaun.
4. Tubewell Division, Shajahanpur.
5. Tubewell Division, Chandausi.
6. Tubewell Construction Division, Moradabad.

M. Lift Irrigation Circles.

I- Lift Irrigation Circle, Lucknow.

1. Lift Irrigation Division, I, Lucknow.
2. Lift Irrigation Division, II, Lucknow.
3. Lift Irrigation Division, I, Rae Bareili.
4. Lift Irrigation Division, II, Varanasi.
5. Lift Irrigation Division, (Tons), Allahabad.

II- Lift Irrigation Circle, Varanasi.

1. Lift Irrigation Division, I, Varanasi.
2. Lift Irrigation Division, III, Varanasi.
3. Lift Irrigation Division, Ghazipur.
4. Lift Irrigation Division, Jaunpur.
5. Lift Irrigation Division, Mirzapur.

III- Lift Irrigation Circle, Allahabad.

1. Lift Irrigation Division, Allahabad.
2. Lift Irrigation Division, Pratapgarh.
3. Lift Irrigation Division, Kanpur.
4. Lift Irrigation Division, II, Rae Bareli.
5. Lift Irrigation Division, Bareli.
6. Lift Irrigation Division, Banda.