



Ukjfl gij ftysdsfy, is ty ;ktuk

; Ksk ukjk; .k JhokLro¹

I kjåk

tyl fo"lky ifjflLFkfrd i) fr dh , d eiy Hkrr bdkbz gÅ LoPN ty dh egRrk , oanyÅkrk dksn[krs gq l Hkh ouLifr] tho tUrq/kadh mRiFRr dsfy; sty gh , d vfr vko"; d eiy &Hkrr vk/kj gÅ bl h ij l cdk thou fuHkz djrk gS, oa ty fcuk fdh h Hkh thou dh dYiuk Hkh ughadh tk l drhA idfr dh ; g vueky Hkrr l hfer ek=k eagh miyC/k gÅ bl jk'Vh; dh l j[k] fodkl , oal p; u] oKkfud rdudhka l sl kekftd , oavkfFKd l gyy/kadksn[krs gh] (ks= fo"ksk dh vko"; drkvkadsvuq i djuk pkfg; Å rktk vupekukadsvuq kj 4000 fofy; u D; fcd ehVj ¼BCM½o'kkZty , oafgeikr l sl rgh , oaHkuty dh miyC/krk ek= 1869 BCM gÅ HkSkfyd , oa vU; dkj . kka l sbl dk dby 60 ifr"kr ; kfu 1122 BCM ty ¼ rgh ty 690 BCM +Hkuty 432 BCM½gh mi ; kx eayk; k tk l drk gÅ bl ds vfrfjDr ty l Hkh LFkkukaij l eku le ; ij , oal eku : i eamiyC/k ugh gksrkA i jso'kZ o'kkZty dby 2&3 eghuka eagh miyC/k jgrk gSvkj og Hkh vl eku : i eÅ Hkjr ea50 ifr"kr l svf/kd "kgjh , oavkS kSxd ty vki fr-7 85 ifr"kr l svf/kd xkE; is ty vki fr-7rFkk 50 ifr"kr l svf/kd fl pkbzvko"; drk Hkrie&ty l Eink ij gh fuHkz gÅ Hkjr dsdbZ Hkxka ea Hkks ty /kj d l jpuvkva/kvVj fo; fjaK Qkjesku½ l shkrie&tyl bu l jpuvkvasidkfrd i quHkz . k i fr-7kwsdseplkcyrssth l sfudky fy; k tkrk gÅ , d s{ks=k eaaty Lrj fujUrj fxjrk tk jgk gÅ c=rh gpbZ tul ; k o fodkl dk ndc Hkuty ds l kfk fgÅ k dj jgk gÅ vf/kd mit o udnh Ql ykads Hkuty ds vR; kf/kd nkgu l se; insk Hkh vNirk ugha gSvkj , d s{ks=k eaal dV l fludV gÅ bl dsfy, vHkh l srneq i ; kstuk cukdj dke djuk le ; dh ekkk gÅ

"**kn** d^h t^h y d^h l a j^h m i ; k^h] h^h k^h t^h y f o d^h k l] h^h k^h t^h y i q^h h^h k^h . k] t^h y A

Drinking Water Plan for Narsinghpur District

Yagyesh Narayan Shrivastava¹

10.18805/BKAP345

ABSTRACT

Water is the most important commodity of this large ecological system. Looking to the scarcity/ rareness and importance of pure water, water is an intrusive and the most important factor for the genesis of all the living organism, flora and fauna. All lives are dependent on water. It is the priceless gift of nature and is present in a very limited quantity. Its use should be judicious considering the national development and conservation for future. Looking to the current data total water available from precipitation the country is about 4000 Billion cubic meter. The availability from surface water and replenishable ground water is 1869 BCM. Out of this only 60% of this available water *i.e.* 1122 BCM (Surface Water 690 BCM and Ground water 432 BCM) can be used and may be considered as available water resource of the country. One more point to be noted is that water is not available uniformly at all places and at all time. In India more then 50% of Urban and Industrial water supply, more than 85% of rural drinking water supply and more than 50% irrigation requirement is dependent on Ground water. In many parts of the country water is being taken out more rapidly from the water wearing formations as compared to the natural refilling which is called the ground water recharge. Water table in these places is falling constantly. Increasing rate of population growth and pressure of development are mainly responsible for this situation. For enhancing productivity and taking cash crops are resulting high tapping of the groundwater everywhere as well as in Madhya Pradesh also. Therefore water resource utilization of an area should be planned keeping in view the availability and demand. Such a planning is presented in this paper for Narsinghpour district of Madhya Pradesh.

Key words: Conjunctive use of water, Ground water development, Ground water recharge, Water.

ty] fo"kkY ifjLFkfrd i)fr dh ,d ey Hkr bdkbz gS
LoPN ty dh egRrk ,oa nYHkrk dks nS[krs gq I Hkh
ouLiFr] tho tUrYkd dh mRiFRr dsfy; sty gh ,d vfr
vko"; d ey &Hkr vk/kkj gS bl h ij I cdk thou fuHkZ
djrk gS ,oa ty fcuk fdI h Hkh thou dh dYiuk Hkh
ugha dh tk I drhA izfr dh ; g vuekSy Hkh/ I hfer
ek=k eagh miYc/k gS bl jk'Vh; dh I q {kk} fodkl

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igypka dks n[krs gq {ks= fo"ksk dh vko"; drkvka ds
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rk tk vupekukadsvuq kj 4000 fcfy; u D; ficd ehVj
(BCM) o'kkt y , oafgeikr l sl rgh , oahknt y dh miyC/krk
ek= 1869 BCM gA Hkxksfyd , oa vl; dkj . kka l s bl dk
doy 60 ifr"kr ; kfu 1122 BCM ty ¼ rgh ty 690
BCM + Hknt y 432 BCM½ gh mi ; kx eayk; k tk l drk gA
bl ds vfrfjDr ty l Hkh LFkkuka ij l eku le; ij , oa
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vki fir 85 ifr"kr l svf/kd xkE; is ty vki fir 7rFk 50
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gh fuHkz gA Hkjr dsdbZ HkxkaeaHkne ty /kkjd jpukvka
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i kdfrd i qHkz . k i firZ gkus ds eplkys rsth l s fudky
fy; k tkrk gA , d s {ks=kae ty Lrj fujUrj fxjrk tk jgk
gA c<rh gpbZ tul E; k o fodkl dk nckc Hknt y ds l kFk
fgd k dj jgk gA vf/kd mi t o udnh Ql yka ds Hknt y
ds vr; kf/kd nkgu l se/; insk Hkh vNrk ughagSvkj , d s
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foa; kpy , oa l ri qk dh igkfM+ ka ds chp mRrj v{kak
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vr;xZ vkrk gA ftysdk mRrjh , oanf{k.k Hkx igkfM+ ka
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vr%ftysdks Hkxksfyd l jpuk ds vk/kkj ij eE; ; r%rhu
Hkxkaeafokkftr fd; k tk l drk gA
v& mRrj eafo; kpy dh igkfM+ kq
c& nf{k.k ea l ri qk dh igkfM+ kq
l & e/; eauehk dk dNkjA

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i mZ l s if"pe fn"kk dh vkj iofgr gkrh gpbZ ftysdks nks
Hkxkaeafokkftr djrh gA bl dh vl; l gk; d ufn; kq
mej "kj] ck#jokj "kDdj] l hrkjok , oanqkh vkfn gA

df'k l kaE; dh; vkldMk adsvuq kj ftysdk dy cks k
x; k {ks=Qy 39077-7 gDVj gA ftl ea l syxHkx 175521
gDVj {ks= eafokHku l d k/kuka} kj fl pkbZ dh tkrh gA
ftysdk fl apr {ks=} dy cks sx; s {ks= dk yxHkx 45 ifr"kr
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ftysdh Hknt y {kerk

ftysdh okf'kd Hknt y vkod ¼ Annual recharge½ 1099&50
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474&61 fefy; u D; ficd ehVj Hknt y vkxkeh fodkl ds
fy, "ksk jgrk gA oraku eaftysdk vkj ru Hknt y dk
fodkl 71 ifr"kr gA Hknt y ds vkadyu dsfooj . k fuEukuq kj
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l el; %Hknt y dk vr; kf/kd nkgu

l rgh ty l d k/kuka ds vHkko ea ftys ea df'k fodkl
¼ fl pkbZ foLrkj½ gq Hknt y , d egroi wkZ ; kx nku ns jgk
gA oraku ea ¼ 2006½ yxHkx 4706 V; mcy , oa 25595 di
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Hknt y l d k/kuka} kj fl apr fd; k tk jgk gS bl l svueku
yxk; k tk l drk gS fd fdl idkj ftysds df'k foLrkj
ea Hknt y dk egroi wkZ ; kx nku gA

rkfydk 1% Hknt y {kerk dk vkadyu ¼ vk/kkj o'kz 1999½ A

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ujfl gij	96	fdfVdy
djyh	60	l jf{kr
xks/skld	105	Vkoj ; WhykbTM
l kbZ ka/lt	96	fdfVdy
phpyh	81	l eh fdfVdy
pkvj i kBk	65	l jf{kr
; kx	71	&

L=ks% l gk&Hknt y fon& ujfl gijA

, d v/; ; u ds vuq kj ftys ds , d V; moy l s ifro'kzvks ru 0&06 fey; u D; fcd eh0 rFkk , d fl pkbz dii l s ifro'kzvks ru 0&02 fey; u D; fcd eh0 ty dk nkgu gkrk gA ifr uy dny l s vks ru 15&42 gDVs j rFkk 3&83 gDVs j {ks= de"r% l hpk tkrk gA

LFkk; h voykdu dii ka ds vksMka ds vuq kj o'kz i mZ %eb&tw% dk ty Lrj vY; fio; e {ks= ea 4&10 l s 28&10 eh0 %vks r ty Lrj 11&16 eh0% rFkk i Bkjh {ks= ea 4&45 l s 11&95 eh0 %vks r ty Lrj 7&85 eh0% ds chp jgk rFkk bl h idkj o'kzi "pkr %vDVcj&uoEcj% dk ty Lrj vY; fio; e {ks= ea 0&90 l s 24&95 %vks ru 7&70 eh0% rFkk i Bkjh {ks= ea Hknty Lrj 1&75 eh0 l s 5&65 eh0 %vks ru 3&40 eh0% ds chp jgkA

Hknty Lrj ds vksMka ds fo"ysk.k

ty Lrj ka ds vksMka ds fo"ysk.k %trend analysis of water levels% l s i k; k x; k fd ftys ds l Hkh fodkl [k.M ka ea o'kz i "pkr ds ty Lrj ka 4&40 l Deh0 l s 32&20 l Deh0 ifr o'kz dh nj l s fxjkoV gsrFkk o'kz i mZ ds ty Lrj ea 6&78 l s 22&40 l Deh0 ifr o'kz dh nj l s fxjkoV gA o'kz i mZ ds ty Lrj ea l cl s vf/kd fxjkoV djsyh , oa l kbZ kMk fodkl [k.M ea gS l kFk gh o'kz i "pkr ds ty Lrj ea fxjkoV l s; g vuoku yxk; k tk l drk gS fd ftys ea [kjhQ l ht u eaf l pkbz dk ipyu c<+jgk gA

rkfydk 2 ds voykdu l s Li 'V gS fd ftys ea o'kz i mZ ds ty Lrj %eb&tw% ea vks ru 7&115 l Deh0 rFkk o'kz i "pkr %vDVcj&uoEcj% ds ty Lrj ea 13&625 l Deh0 ifr o'kz dh nj l s vou; u gA

l eL; k ds dkj.k vks mudk fo"ysk.k

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c& Hknty Lrj dk vf/kd nkguA

l & df'k i) fr , oa Ql yka ea ifjorZuA

ftys ea o'kz

ftys dh okf'kd l kekl; o'kz Hkjr; ekS e foHkx ds vuq kj 1067&38 fe0eh0 gA fi Nys o'kz ds vksMka , oa mudk l kekl; o'kz l s rgyuk rkfydk 3 eafn; s x; gA

fi Nysnl o'kz ds vksMka ds voykdu l s Li 'V gS fd bl vrjky eadny rhu ckj l %ks dh fLFkr fufeZ gbl tgrk o'kz l kekl; o'kz l s vr; kf/kd de jghA bu o'kz ea yxHkx 32 l s 45 ifr "kr rd o'kz ea deh i kbZ x; h tcd vl; o'kz ea o'kz vks r dscjkj vFkok vf/kd jgh gA vr% ftys ea o'kz dh fLFkr dk Qh vPNh jgh gA

Hknty dk nkgu

fi Nysnl o'kz ea fl pkbz grq Hknty ds nkgu dh ek=k rkfydk 4 ea l dfyr fd; k x; k gA

ftys ea okf'kd Hknty vkod 1099&50 , el h, e gA mijDr rkfydk 4 ds vuq kj] o'kz 1998 rd Hknty dk nkgu vf/kdre-%dny fl pkbz grq 561&92 , el h, e jgk tks yxHkx dny vkod dk 51&10 ifr "kr jgkA o'kz 1998 rd ftys ea nkgu , d l jf'kr l hek ds vLrxZ Fk i jUrq o'kz 1999 ea Hknty ds nkgu eavpkud 20 ifr "kr dh of) vkMdh xbA o'kz 1996 l s 1998 rd Hknty dk vks r nkgu 560&59 , el h, e %61% jgk] i jUrq o'kz 1999 l s 2006 rd

rkfydk 2% fodkl [k.Mokj vks r ty Lrj , oa mlu; u rFkk vou; uA

fodkl	Hknty Lrj eh0 ea		Hknty dk mlu; u vks vou; u l Deh0 o'kz			
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ujfl gij	7&00	5&32	%&1/2 0&72	flFkj	%&1/2 12&98	vou; u
djsyh	12&04	9&44	%&1/2 21&64	vou; u	%&1/2 15&27	vou; u
xk/sxkM	6&25	5&10	%&1/2 1&27	flFkj	%&1/2 13&87	vou; u
l kbZ kMk	14&22	12&13	%&1/2 22&4	vou; u	%&1/2 12&96	flFkj
fppyh	9&53	8&41	%&1/2 8&77	mlu; u	%&1/2 2&20	vou; u
pMj i kBk	9&14	7&4	%&1/2 6&87	vou; u	%&1/2 4&47	vou; u
vks r	9&70	7&97	%&1/2 7&115	vou; u	%&1/2 13&625	vou; u

L=k% l gk&Hknty fon& ujfl gijA

रकियदक 3%fi Nys o'kkā ds o'kkz ds vkMMMA

o'kz	o'kkz fe0eh0	okf'kz I keW; o'kkz 1067&38 fe0eh0 I srgyuk	
		ek=k fe0eh0 ea	ifr''kr
1996	588&20	&479&18	&44&91
1997	1652&20	585&12	54&84
1998	715&74	&351&64	&32&96
1999	1819&25	751&87	70&47
2000	692&70	&374&68	&35&12
2001	992&00	&75&38	7&06
2002	1071&00	3&61	0&34
2003	1051&00	&16&38	1&5
2004	819&00	&248&38	23&21
2005	1452&00	384&62	36&0
2006	1331&60	264&22	24&75
2007	773&00	&294&38	&27&57
2008	785&00	&282&38	&26&45
2009	859&00	&208&38	&19&52
2010	800&80	&266&58	&24&97
2011	1108	40&619	3&80

L=kr%ftyk I kâ[; dh i qLrdk] ujfl gijA

रकियदक 4%ftyse okf'kz Hknt'y nkguA

o'kz	Hknt'y nkgu dh ek=k ¼ el h, e eâ
1996	559&30
1997	560&56
1998	561&92
1999	761&88
2000	767&48
2001	767&48
2002	767&48
2003	786&46
2004	794&68
2005	797&22
2006	800&26
2007	801&50
2008	802&54

L=kr%I gk&Hknt'y fon& ujfl gijA

ftyseavkâ r nkgu 781&03 ,el h, e ¼1%½ gks x; k gâ
vr%Hknt'y dsnkgu eaof) Hknt'y Lrj dsfxjkoV eai Hkko
dkjd gâ

I ek/Ku%I aâ r mi ; kx %conjunctive Use½

mijkâ r ifjn"; I sLi'V gSfd ujfl gij ftyseHknt'y
dh fLFkfr xHkij gâ ,I h fLFkfr eaiR; d xkâ eai kuh ds
fy; sHknt'y o I rgh ty ¼rkyk½ dk I aâ r mi ; kx fd; k
tkuk pkfg; A fo'kskdj mu xkâka ea tggWi gys I sgh o'kkz
ty I æg.k dsfy; sijkâ fjd : i I srkyk cusgg sgâ ; s
ijkâ fjd rkyk I fn; ka imZ ds cuk; sgq sgâ ftudh feVVh
eai ; kLr i Mfyæ gks pph gâ vr%; srkyk , d ckj Hkj
tk; arksI ky Hkj i kuh nrsgâ bueal sek= ok'iu }kj k gh
ty gkfu gksh gâ bl fl yfl yse orêku ea ; srkyk
vfLrRo ds I dV I s tw jgs gâ D; kâd budk ¼¼ d pæ/
ckf/kr gS½½ rkyk ea xkn teko gâ

Table 5: Drinking Water Plan for Narsinghpur District

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		cn ds dkj.k					
		pkyw	cn	i kuh dh deh l s cn	vU; Hkj&iVs ¼/ l qkkj ; kx; ½	l kekU; [kj kch l scn gMi & ¼ qkkj ; kx; ½	
ujfl gij	10151	9986	165	50	50	65	3

; gh LFkfr vU; xkka ds ikl l sgkdj xqj us okys
ijfu; y ukyk dh gA n jh vkj tks is ty vki frZ gMi
l sgksjgh gSog 0; oLFk Hkh l rkskin ughagA , d l o k.k
ds vuq kj 15&30 ifr"kr gMi gj l e; fcxMgh jgrs
gA vi ; klr ikuh nsuk o Hkh pyuk n jh vke l el; k gA
rkfydk 5 eaorZku LFkfr Li'V gA

bl l el; k ds l ek/kku Lo: i ; g l a pr mi ; kx
ekMy iZr fd; k tk jgk gSftl ds nks Hkh 1/2 phase 1/2 fd; s
tk l drsgA

1/2 is tyA

1/2 fuLrkjh mi ; kx

ij s xk dh tul dk; k ds vk/kkj ij ; kstuk cukbz tk; s
o is ty dsfy; s Hknty dk mi ; kx fd; k tk; so fuLrkj
dsfy; srkyk ty dka

bl ds fuEufyf[kr l ki ku gkA

1/2 turk dks ty&pruk o ty f" k{k.k dsek/; e eabl

ckr dsfy; srS kj djuk gkA

1/2 dpeW , fj; k Bhd djuk 1/2 clearing 1/2

1/2 xkn fudkyuk 1/2 De & Silting 1/2

1/2 rkyk dk vkdkj o eM+Bhd djukA

1/2 rkyk rVka dks l qj o LoPN j [kukA

1/2 j [k&j [kkoA

ds so dks djks

bl dsfy; sLFkkuh; xte i pk; rj tyxg.k fodkl l febr; k
o ou fodkl l febr; k mfr ek/; e fl) gkch D; k d ; g
ijk dke tu Hkxhnhkj ds }kj gh l Hko gA bl l sfgy
ty pruk dks tkxr djds tu l efkZ o l gefr cukuk
gkch vkj bl ijs dke ds ihNs ds ykHk dks Hkh l e>uk
gkA crkuk gkch fd bl dsfy; s xk ds f" k fkr cqt qZ o
; pk Nk= oxZ dks vkxs gkA vkt gj xk ea 5 l s 10
batfu; fjx ds Nk= gars 20&25 vodk" k iklr depkj gh
tks feydj bl "k dk; Z ds/o.kokgd fl) gk l drsg
vkj ijs xk dks "k fey dj bl gk; fcM&ekMy ds }kj
yxHkx 20 ifr"kr ty dh cpr dj l drsgA

fu'd'k

mi jkDr ckrkal sLi'V gkrk gSfd Hknty dk mi ; kx fujrj
}r xfr l sc<rk tk jgk gSftl rjg ty Lrj eafxjkoV
i kbZ tk jgh gSrFk Hknty ds nksu earsth vk jgh gSbu
l cdkns [krsgq ; g vko"; d gSfd ftysa ty l a k/ku
dk mi ; kx fu; ktr < x l sgksftl l sf d Hkfo'; ead f'k
mRi kndrk rFk tu l kekU; ij fdl h Hkh idkj dk ncko
u i Mso ty i frZ dh l fuf"pr 0; oLFk cuh jgA bl fr"kk
ea l a pr mi ; kx dk ; g ekMy vkt l s viukuk , d
njin"khZ fodYi gA

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