

'k; r h o z k] 'k; f o f o / r k , o a i ; k o j . k % y o k y ; j f t y k d s m t j k f o d k [ k M d k , d i z h d v / ; ; u

(Cropping intensity, Crop diversification and Environment : A Case study of DABRA Development Block of Gwalior District)

Mk v kj , l - i o kj  
Mk v fer i o kj  
j kt h o i o kj

Hk j r , d - f ' k i z k u n s k g a b l d s f o d k d s f y , i ; k o j . k h d k j d k a d s i f i s ; e a g k d s H k e l a k k u k a d k l E d m i ; k v f r v l o ' ; d g a f o x r - n ' k d k e a - f ' k v k k u d j . k d s Q y L o : i ; g k - f ' k m R k n d r k e a d k O h o f ; g o z g a t g k , d v k s ; g o f ) l H h t x g l e k u : i l s u g h a o z g s r F k b l e a L F k u d f o ' l e r k ; j i k b z t k r h g s t k s - f ' k e a g g u o k j k i k f o f / d h d s m i ; k r F k v U d k j d k a t S s % t k s d k v d k j ] d k L r d k j h Q o L F k j f l a k b z ; k r k k r ] f o l t r d j . k o l e k t d d k j d k a d h f H k u r k d s d k j . k g a o g r a n v j h v k s g j r O k u t d s p O e a - f ' k d k r k s f o d k g o k f d u t d p l l s c g g l h - f ' k i f j f l F r d l e l ; k a h m R u g o z g a b l l s - f ' k d s v k k j h l a k k u k a d k c o p h r j g l s g h g o k g s F k v k k u d - f ' k i ) f r ; k a j d b z z u n B [ k a g g a g l R g s d v k k u d r d u h h j k k f u d m o z d k a v k f n d s i z k s l s - f ' k m R k n u e a o f ) g o z g s f t l l s v k F k z L r j m B k g s f d u t q ; g m F k u n h z d k y r d L F k h j g u s d s i f r f o ) k u k a e a l a k g a v l o ' ; d r k b l c k r d h g s d c x s - f ' k l a k k u k a d s g h d s m R k n d r k e a o f ) g a i z r q ' k k i = b l h m a s ; d h i k f r e a d i g y g a v / ; ; u { k s %

Hk j r d s g h ; L F k y e / ; i z n s k j k t ; d s m R j h H k x e a l F k r Y o k y ; j f t y k d s n f f k k i o h z H k x e a m t j k f o d k [ k M f l F r g a b l d k v { k a k h f o L r k j 2547\* m R j l s 2601\* m R j , d r F k n s k u j h f o L r k j 7808\* i o z l s 7939\* i o z r d g a b l d h v k - f r y x H k x f = H k k d k j g a f o d k [ k M d k d g H k s k y d { k s Q y 91088 o x z f d e h g a / k j k r y h n f V l s ; g , d l e r y e s k u h H k x g s d u t d p l d s m R j h H k x e a f o z k p y d h j s k k f l F r g a ; g k j k t L o x z e k a d h d g l a ; k 159 g s f t u e a s x z e o s o j k x g a ; s l H h x z e 50 V o k j h g y d k a e a f o H d r g s t k s f d ' k k b d k b z d k f u / k z . k d j r s g a

l u - 2011 d h t u x . k u k d s v u q j v / ; ; u { k s d k a d g x z e h k t u l a ; k 1 ] 79 ] 0598 O f d r g a b l i z l j ; g k 196-58 O f d r i f r o x z f d y k e h v j f u o k d j r s g a ; g k d h v F k O o L F k e g ; r k % - f ' k , o a ' k o k y u i j v k k j r g a v / ; ; u { k s d h e g ; u f n ; k f l U k j N N n j o u k s g a ; g k d k s u s d s c w g i z l j d h t y o k o j k h t k r h g a ; g k o ' k z d k o k ' k z v k s r 7906 f e - f e - g a f o d k [ k M d s n f f k k i o z e a t y k s + f e V V h ] m R j e a y k y f e V V h r F k e / ; H k x e a e / ; e d k y h f e V V h d k f o L r k j g a i z - f r d o u l i f r d k ; g k i z % H k o g a i z o r f o f / r a %

i z r q ' k s d k Z e a i f k e d v l d M e d s v f r f j D r f j r h d v l d M e d k l a y u f o f H U  
 d k k y ; k s i z r i z k f k r , o a v i z k f k r l e x h l s f d ; k x ; k g s l a f y r v l d M e d k m i ; D r  
 : i l s i f j " - r , o a r k y d k ) d j d s f o f H U l k f ; d h f o f k k s d k i z k s f d ; k x ; k g s v / ; u  
 { k s d h { k s h f l F k r , o a l e L ; k v k a d k s m H k j u s e a N k k f o f / k } k j k f u f e z e k u f p = l g k d g q g s  
 e k u f p = k a d k f o ' y s k k - f ' k i k j f l F k r d h l a Y i u k d k s n f V x r j [ k s g q f d ; k x ; k g s  
 ' k l ; k r h o z k 1 0 o p p i n g l n t e n s t y 1 %

' k l ; r h o z k d k l a z k , d g h [ k s e a o ' k Z e a m R U d h t k u s o k y h Q l y k a d h l a ; k l s g s  
 ; f n f d l h [ k s e a o ' k Z e a d g h Q l y i s k g k s h g s r k s o g k d k ' k j c k s k { k s r F k d g Q l y { k s  
 c j k c j g k s k A , s h n ' k e a o g k d h ' k l ; r h o z k , d g l s h A b l i z k j ; g - f ' k H k e r F k c k s z g q z  
 H k e d k v u i q f r d : i g s l l e k U r % k l ; r h o z k r F k ' k l ; x g u r k d k l e k u v F k z e s i z D r f d ; k  
 t k r k g s f d U d p u n k s e s i ; k z r H k a g s t g k ' k l ; r h o z k d k l a z k f d l h f u f p r - f ' k { k s e a d  
 Q l y h o ' k Z e s Q l y k a d h c k j a j r k l s g s o g r a k l ; x g u r k d k r k R ; Z h k e e a v f d i a h v k s J e  
 d s f o u k k s } k j k f d l h Q l y d k i f r b d k z v f d m R k n u i z i r d j u s g s i f r b d k z m R k n u  
 f l p k z c h t ] [ k n r F k e ' k u k a d h m i y Q r k i j f u H z g s p k s k u 1 9 6 6 1 / 2 u s k l ; r h o z k d h / k j . k  
 d k s d l p a d k a l d s i e a i z D r f d ; k g s t l s k l ; r h o z k l p a d k a l d s u k e l s t k u k t k r k g s t k s  
 b l i z k j g s s

$$' k l ; r h o z k l p a d k a l = \frac{d g Q l y f k s ( T o t a l C r o p p e d A r e a ) ,}{' k j c k s k ; k k s ( N e t A r e a S o w n ) } \cdot 100$$

i z r q v / ; ; u e a - f ' k H k e r h o z k d h x . k u k m i ; D r l w d k s v k k j e k u d j d h x b z g s  
 f o d k [ k M d s i B j k z i V o k j h g Y d s e a v f d r e ' k l ; r h o z k 1 9 1 - 3 i f r ' k r 1 / 2 F k n o x < i V o k j h  
 g Y d s e a f u E u r e ' k l ; r h o z k 1 8 3 - 3 i f r ' k r 1 / 2 k b z t k r h g s l E i v z f o d k [ k M e s k l ; r h o z k d k  
 v k s r 1 4 5 - 8 4 i f r ' k r g s i V o k j h g Y d k L r j i j ' k l ; r h o z k d k v k a l y u d j u s j { k s e a v R a g h  
 f o ' l e r k j ; n f V x k j g k s h g s f t u d k v / ; ; u f u E u J s k s a j k l a l o g s %

- 1/4 1/2 U w r e ' k l ; r h o z k { k s
- 1/4 1/2 U w ' k l ; r h o z k { k s
- 1/4 1/2 e / ; e ' k l ; r h o z k { k s
- 1/4 1/2 v f d ' k l ; r h o z k { k s

v 1/2 U w r e ' k l ; r h o z k { k s % v / ; ; u { k s d s f t u i V o k j h g Y d k e a s k l ; r h o z k d k e k u 1 1 0  
 i f r ' k r l s d e g s m u g a b l o x Z e j [ k k x ; k g s b l o x z d s v a x z 1 3 i V o k j h g Y d s v k r g s t k s d g  
 i V o k j h g Y d k a d k 2 6 - 5 3 i f r ' k r H k x g s b u i V o k j h g Y d k e a f o d k [ k M d s 3 1 x k e l f e e f y r g s  
 t k s d g x k e k a d k 1 9 4 9 i f r ' k r g s ; g { k s f o d k [ k M d s m R j h H k x e a f o L r r g s b l o x Z e a  
 v k u s o k y s i z e k i V o k j h g Y d s t k s k h 1 0 9 8 i f r ' k r 1 / 2 y [ k u i j k 1 0 0 6 i f r ' k r 1 / 2 o a s j h 1 0 2 -  
 6 i f r ' k r 1 / 2 g s o u k F n k i n r i F j h y h H k e ] f l p k z d k v H k o r F k f o d k d h d e h d s d k j . k ; g l a k l ;  
 r h o z k c g q d e i k b z t k r h g s

c½ U w' kL; r h o z k { k s % f o d k [ k M d s f t u i V o j h g Y d k e a k L; r h o z k 110 i f r ' k r l s 130 i f r ' k r d i k b z t k r h g s m u g a b l o x z e s j [ k k x; k g a b l o x z e s f o d k [ k M d s 7 i V o j h g Y d s v k r s g a b u e a 23 x t e l f e e f y r g a b u i V o j h g Y d k e a f p: y h 1 30-7 i f r ' k r 1 2 y [ k u k h 1 25-2 i f r ' k r 1 2 o a f l f e f j; k H h u k j h 1 25-0 i f r ' k r 1 2 z e j k g a b l e a f l f e f j; k H h u k j h i V o j h g Y d k v /; ; u { k s d s n f k k H h x e a f k k ' k e e /; H h x e a f l f r g a b l { k s e a f l f l p k b z d s i; k r l k u m i y O k u g h a g a v r % g k a h h ' k L; r h o z k d e i k b z t k r h g a

l 1/2 e /; e ' k L; r h o z k { k s % v /; ; u { k s d s t k s i V o j h g Y d s 130 i f r ' k r l s 150 i f r ' k r r d ' k L; r h o z k j [ k r s g a m u g a e /; e ' k L; r h o z k d s { k s d g k x; k g a b l J s k h d s v u x z 5 i V o j h g Y d s v k r s g a f t u e a 27 x t e l f e e f y r g a; s { k s f o d k [ k M d s n f k k H h x e a f l U k u n h d s f d u k s f l f r g a b u e a i z e j k i V o j h g Y d s N i j k 1 48-6 i f r ' k r 1 2 e x j k s k 1 30-5 i f r ' k r 1 2 c j k s k 1 45-0 i f r ' k r 1 2 k f n g a u n h r V o r h z { k s g l s d s d j . k; g k , d l h e k r d f l p k b z t h o g s D k s d ; g k d k d V k & Q v k / j k r y f l p k b z e a c k k m r l u d j r k g s v r % g k l l e k u ' k L; r h o z k i k b z t k r h g a

n½ v f / d ' k L; r h o z k { k s % f o d k [ k M d s f t u i V o j h g Y d k e a k L; r h o z k 150 i f r ' k r l s v f / d i k b z t k r h g s m u g a b l o x z e s j [ k k x; k g a b l J s k h d s v a x z 24 i V o j h g Y d s v k r s g s t k s f o d k [ k M d s d g i V o j h g Y d k e d k 48-97 i f r ' k r g a b u i V o j h g Y d k e a 78 x t e l f e e f y r g s t k s d g x t e k a d k 49-05 i f r ' k r g a; g { k s f o d k [ k M d s n f k k k e i f p e h H h x e a f o l r r g a b u e a c k u s o k y s i z e j k i V o j h g Y d s O e ' k e l n i j 1 750 i f r ' k r 1 2 v u a i s 1 49-3 i f r ' k r 1 2 M j k x t e h k 1 455 i f r ' k r 1 2 e j k t i j 1 75 i f r ' k r 1 2 f d k s h 1 457 i f r ' k r 1 2 g a b u { k s e a f l p k b z d h l o p / k v k a d h m i y O k r k j l e r y H h e , o a k s e a d k N k / k v d k j ; g k d h v f / d ' k L; r h o z k d k i f j p k d g a

' k L; r h o z k d s i z r i f r : i b l r F; d h i v z v f h o f d r d j r s g s f o d k [ k M d s n f j h l h e l o r h z { k s e a k L; r h o z k d e r f k e e /; l s n f k k e i f p e { k s e a v f / d g a b l d k d k j . k m r j h H h x e a f l p k b z d h l o p / k v k a d k v H h o , o a - f ' k O l e z d s v d k j d k c M k g l k g s t c f d e /; l s n f k k e i f p e { k s e a f l p k b z d s f o f H u l k u k a t s s u g j d a k j V ; - o o s j r k y k c v k f n d h m i y O k r k j l e r y m i t k A / j k r y u x j h l e h r k r f k [ k s e a d s N k / s v d k j u s ' k L; r h o z k d k s c < k g a o l r q % g k - f ' k H h e l o k j d h; k s u k v i u k s f c u k H h e d k x g u r e m i; k s l H h o u g r a g a

' k L; f o f o / k r k C r o p D i v e r s i f i c a t i o n 1 %

' k L; f o f o / k r k d k r k R; Z f d l h { k s e a c k b t k u s o k y h Q l y k a d h l a ; k l s g a f o f o / k r k , o a Q l y k a d h l a ; k v k i l e a v u o k e u i q k r h g k s h g s v f k z - c l s h t k u h o k y h Q l y k a d h l a ; k c < u s d s l k f k g h f o f o d k k H h c < # h t k r h g a f o f o / k r k c < u s l s f d l h H h { k s e a f o d k d h l a k o u k a f v r h g a l l e k u r % f d l h H h { k s e a Q l y k a d h f t r u h d e f o f o / k r k g k a h m i e s f o d k d s m r u s g h v f / d v o l j i z r g l a n w j s k n e a d e f o f o / k r k f o k s t o j . k d k s v o l j i z k u d j r h g s f t l d k f o d k

esegPoi vZLFku gA —f'kr -mR ndr k esof) ] —f'kd hxgur k, oafofok kdhl d Yi ukv ka  
 d ksvi ukuseaghgA bl ds} kj kx zehk {ks seacjsk xkj hr FkJe v frj sl d kU wre fd; kt k  
 l drkgA 'kL; fofok kd hfopkj /kj dk —f'kfod k l aahv /; ; uksefo' kK egPo gSD, kd  
 fofok k cgg d d vaksae —f'kdsi fr: i dsfu/kz. keal gk d gkshgA l leUr %c d f'k  
 fuokgd gkshg\$ rks, d ghHkHkx ij vud i zkj dhQl yanR lu dht kusdsd kj.k' kL;  
 fofok kvf/d gkshgA bl dsfoi jr Qk kj d d f'keafdl hQl y fo' kkdsof k'Vhdj. kd h  
 i zfr dsd kj. kfofok k de gkshgA

' kL; fofok kdso' y sk kgsdHkV; k 1960/2 us d l padkal dki zks fd; kg\$ft l s kL;  
 fofok kl padkal dgkt kr kg\$st kfuEukuqkj gS&

$$' kL; fofok kl padkal = \frac{\text{fofok lu Ql ykad s utxZ dg Ql yh} \{ks dki fr'kr\}}{\text{fofok lu Ql ykadhl \& k}}$$

mi; Vr l wdsvk/kj ij fdl hHh {ks eal leUr %5 l svf/d HkHkx ij ckZxbZ  
 l HhQl ykads i fr'kr dk; ks dj mudhl & k l sHkx nsj fofok kl padkal Kkr fd; k  
 t kr kgA 'kL; fofok kl padkal dk' kL; fofok k dsl kFk Q f'kukuqk 1/2 inverse Proportion 1/2  
 gsk g\$ vfkz ~ft rukl padkal v f/d gsk fofok k mruhghde gsk hA fod k k Mds  
 fofok lu i Volj hgYd kse' kL; fofok kl padkal dhx. kuk djusi j t kseku i dr gks gA  
 mlgafuEu plj HkxkseafokHkft r fd; kx; k gS&

v 1/2	vfr mPp 'kL; fofok k %	1/4L; fofok kl padkal 21 l sde 1/2
c 1/2	mPp 'kL; fofok k %	1/4L; fofok kl padkal 21 l s26 rd 1/2
l 1/2	e/; e' kL; fofok k %	1/4L; fofok kl padkal 26 l s31 rd 1/2
n 1/2	fuEu 'kL; fofok k %	1/4L; fofok kl padkal 31 l svf/d 1/2

v 1/2 vfr mPp 'kL; 1/4L; fofok kl padkal 21 l sde 1/2 fod k [ kMse mPre 'kL; fofok kvfkz ~  
 U wre 'kL; fofok kl padkal dk dg {ks 10 i fr'kr g\$ ft uea5 i Volj hgYd svkr sgA budk folr kj  
 fod k [ kMds/; or hHkx eauxjh {ks kd s ehi gA; glavf/d ckt kj evy rFk; kr k kr dhi; Vr l Qp/kds  
 dkj. kvi sk-r NKs [ks seahh G h] plj kj Oy] Qyv vfn Ql ykad kmR lu dj dsvf/d dre yHki dr fd; k  
 t kr kgA, s xteksae —f'kHk de gS/ks d "ld vkuhvo'; dr kds'; ku esj [ kr sqg d f'kHk d kmi; ks dj rs  
 gA bl oxZdsi Volj hgYd sDe' kMj kx zehk 1/8-3/2 fl fejj; kr ky 1/95/2 bvk y 1/20-2/2 dr kui j 1/205/2o  
 l ky cbZ 208/gA

c 1/2 mPp 'kL; fofok k 1/4L; fofok kl padkal 21 l s26 rd 1/2 mPp 'kL; fofok k ds {ks ea  
 fod k [ kMds7 i Volj hgYd svkr sg\$ t ksd g i Volj hgYd kad k 15 i fr'kr gA bu i Volj hgYd kad sxte i k %  
 uxjh {ks ds l ehi l fFr gA uxjh l ehi r kus gk mPp 'kL; fofok kd kst le fn; kgA bl J skheav kusokys  
 i zqki Volj hgYd sdj gh 1/250/2 v uai s 1/22-0/2 cj sk 1/24-0/2 v fn gA

l 1/2 e/; e' kL; fofok k 1/4L; fofok kl padkal 26 l s31 rd 1/2 fod k [ kMds okZ/d 21 i Volj h  
 gYd sbl J skhesa fefyr g\$ t ksd g i Volj hgYd sd k 41 i fr'kr gA bl l s g Li "V gsk gSd fod k [ kMdk  
 v f/d kak Hkx v ks r fofok kd k {ks gA fod k [ kMds mR j & i f pe dsvf/d kak cMv kd kj ds xteksae/; e

' k; fofo/r knš kusd ksfey r h gā nf{k k&i f pe , oai vZd hv k; x gā x luko /ku i zēk Qi y sgā Hfē dhv FNh moZdr k j rd ul h kku r Fk fl p kbZd sl k kuka dhmi y O kr kusbl {kē esof k'Vhdj . kd kLFku fn; kgā ; gā x luko d smR knu usd f'k es kL; fofo/r kd ksde fd; kgā bl oxZd si zēki Volj hgYd sfp: y h 127-272 v d cbZ cM h 128-612 cks k 129-112 qcbZ 129-512 fl j ky 129-812 okZ 130-012 fd' ky h 130-412 fl efj; k H S ukj h 130-612 v kfn gā

n 1/2 fuEu ' k; fofo/r k 1/4 k; fofo/r kl p d kal 31 l svf/d 1/2 bl J shk d sv axZ fod k [ k Md s17 i Volj hgYd sv k sgā t ksd g i Volj hgYd k ad k 35 i fr' kr gā ; si Volj hgYd sv /; ; u {kē d smR j h H kē esof l r r gā bl d keq; d j . k; g gsd ; gād s x z e k es d f'k; kē Hfē v R a de gā bl d s k Fkghl k Fk; gād sfd l kuu v R a fu /Z gā , s h fl Fkr ea gād sfd l ku fuokZ d d f'kd jr sgā m Pp vl ery /k kry ] i k d fr d ouLi fr dh v f/d r kr Fk fl p kbZd sl k kuka d sv H k o d sd j . k; g k d sd "kd Hfē l so "k Z H j . Qi y i k r ugh d j i k r sgā bl i z l j . Qi y k ad hl ā ; k de j g usd sd j . k bu x z e k ad h' kL; fofo/r k ?/r h gā bl J shk d si zēki Volj hgYd s Øe' k t k s k h 132-812 /eud k 133-612 y [ kul s h 135-012 ? H k k 135-412 t j x k 136-112 g Fu k s k 13612 l s j h 137-812 v kfn gā

v /; ; u {kē dh' k; r h o z k , o a kL; fofo/r kd sv /; ; u l s g Li "V gsd ; g k d f'k fod k us h o k k fud fo"ler kd ksv k s v f/d fod fl r fd; kgā v f/d l svf/d m R knu g s g e i k d fr d l ā k k u s i j v R f/d n c l o M y j g s g ā bl l sd f'k d k i k j fl Fkr dh v k k j g ā k s e q k g o k g ā j l k fud moZdr k d h v u k kd nok v k a , o a [ k j i r o k j uk kd nok v k v kfn d sv R f/d mi ; kē l senk moZr kr Fk H k H Z t y i j fo i j h r i H k o i M j g k g ā fd l k u a o a k k fud k ad sv u b k ad sv k k j i j , l sfod Yi < a u s d s i z k fd ; s x ; sg S t l l sd f'k i k j fl Fkr dh r a d k s c p k s j [ k r s g q v f/d m R k n d r k d k s c u k s j [ k t k ā d f'k i k j fl Fkr dh d h l a l Yi ukbl fn' k k e a d i gy gā [ k s k ad s fu; k s u ] d f'k d s l k f o { k ad s t M k o } v u s l Qi y k ad k s c k s s j Qi y k ad s p f Ø; Øe d k s c < k u s d s y g k fud k j d [ k j & i r o k j k ad k u "V d j u s t S h v u s l x f r f o f / k k a j k j k [ k s k ad h f o f / r k d k s c < k k t k l d r k g ā f e V V h e a t h o l t r k d k g k s k H h v R k o' ; d g ā bl l s f e V V h d s t f v y r R o l j y r R o k e a c n y r s j g r s g ā f t l l s i s k i k k a d s k Fkghl e s j g u s o k y s t h o t t u r k a d k s h y k k i g o r k g ā v R f/d j l k u f e V V h d h t h o l t r k d k s u "V d j r s g ā v r % b u d s l F k u i j t s o d r R o k a d k m i ; k s fd ; k t k u k p k f g , A b l i z l j v k t i k j fl Fkr dh d f'k d s v u d y u dhv fuok Z / k o' ; d r k g ā

**l a H Z t F k &**

- 1- i o k j v k j - , l - 1983/26 kL; r h o z k j ' kL; l a k s u r F k x z e h k f o d k l % o k y ; j l H k k d k i z h d v /; ; u ] v l r x z f o d k l ' k r y H k k y i f = d k j o ' k Z ] l ā ; k 1 ] t u ] i - 41
- 2- Chauhan, D.S. (1966): Studies in Utilization of Agricultural Land, Agrawal & Co., Agra pp. 22&44
- 3- i o k j v k j - , l - , o a k e k Z , l - d s 12007/26 e f u b r x z e h k f o d k l , o a k n s k d f u ; k s u ] f M l d o j h i f c y f k a g k m l ] u b Z n Y h j i - 116
- 4- i z l k k j Q h 1989/26 e f u b r x z e h k f o d k l , o a i k n s k d f u ; k s u % t k u l B f o d k l [ k M 1 e d t Q u x j t u i n 1/2 k , d p ; f u r v /; ; u ] v i z l k ' k r ' k s k x z k e s B f o' o f o ] k y ; e s B ] i - 112
- 5- Bhatia, S.S. (1990): An Index of Crop Diversificatonn, Professional Geographer, No.12, p.2
- 6- l a H Z - 3 ] i - 126
- 7- p k j h j Q h d s 12002/26 k j fl Fkr dh d f'k % d f o' y s k k j v l r x z m R j H k j r H k k y i f = d k j v a l & 33 ] l ā ; k 1 o 2 ] t u & f n l E c j ] i - 47-