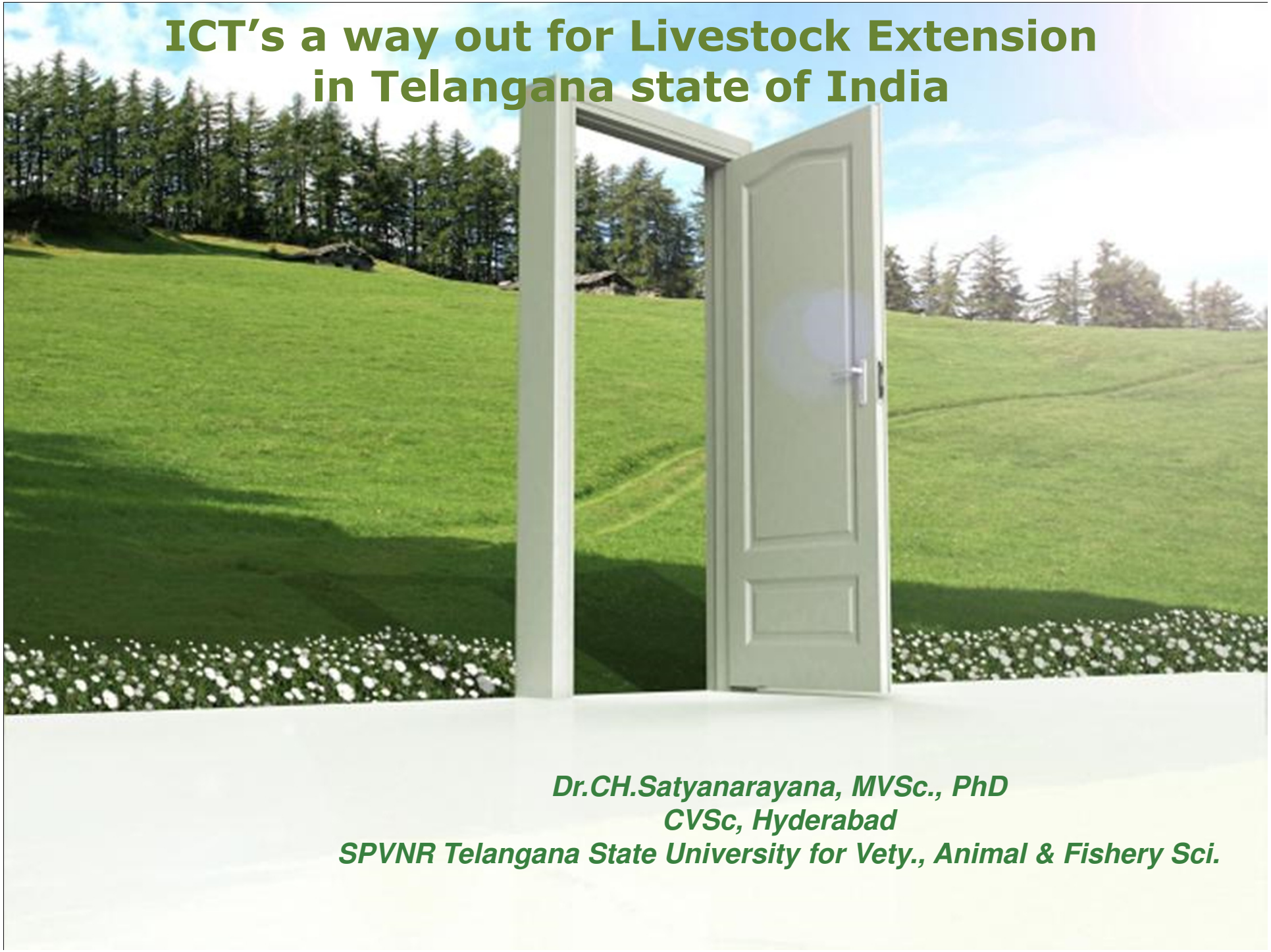
ICT's a way out for Livestock Extension in Telangana state of India



Dr.CH.Satyanarayana, MVSc., PhD
CVSc, Hyderabad
SPVNR Telangana State University for Vety., Animal & Fishery Sci.



Introduction



Map of Telangana

3.5% of India's total geographical area and 2.9% of population

Ranks 12th

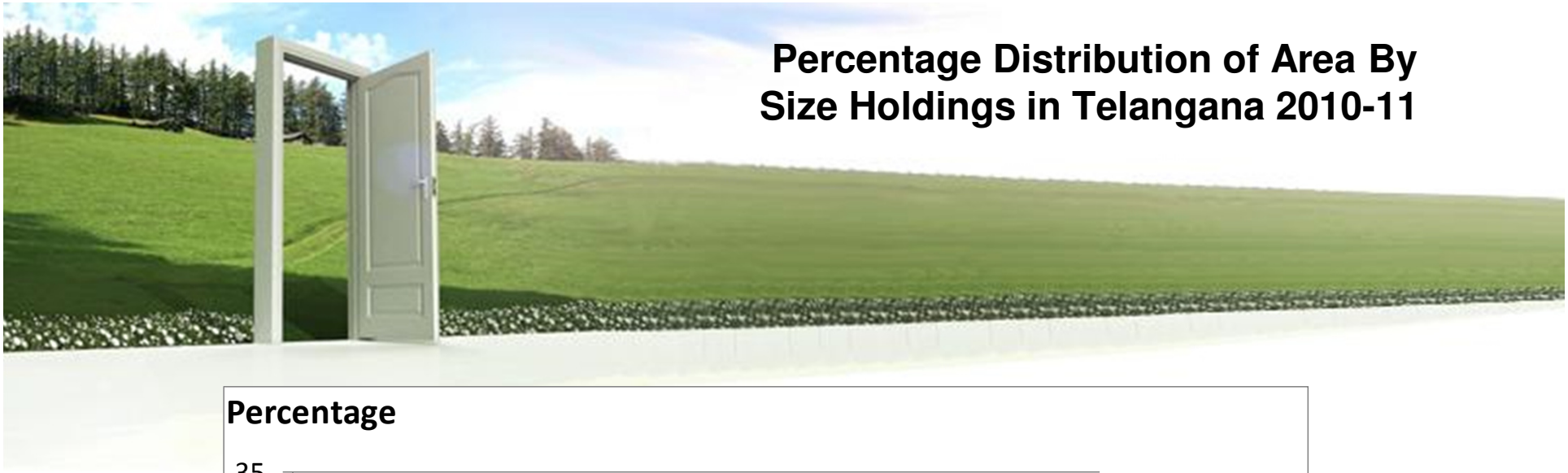




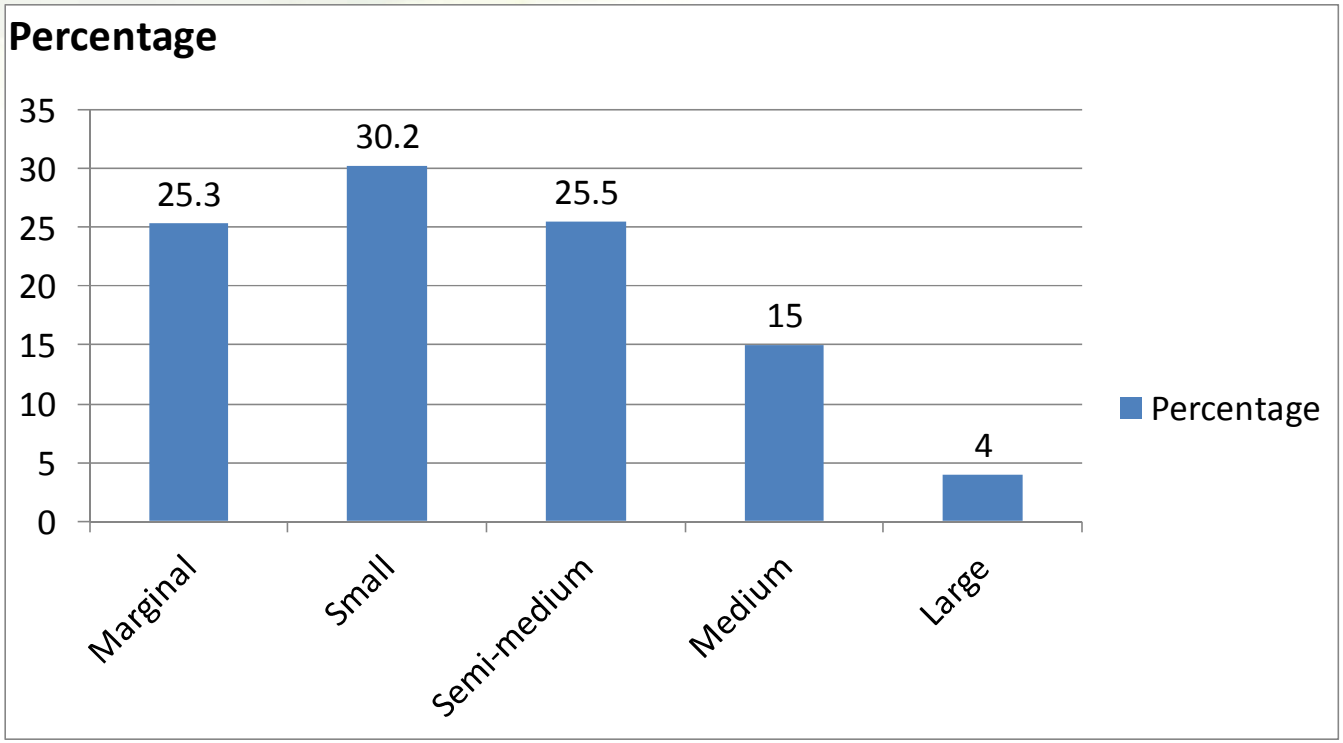
> 2/3rd engaged directly in the agriculture



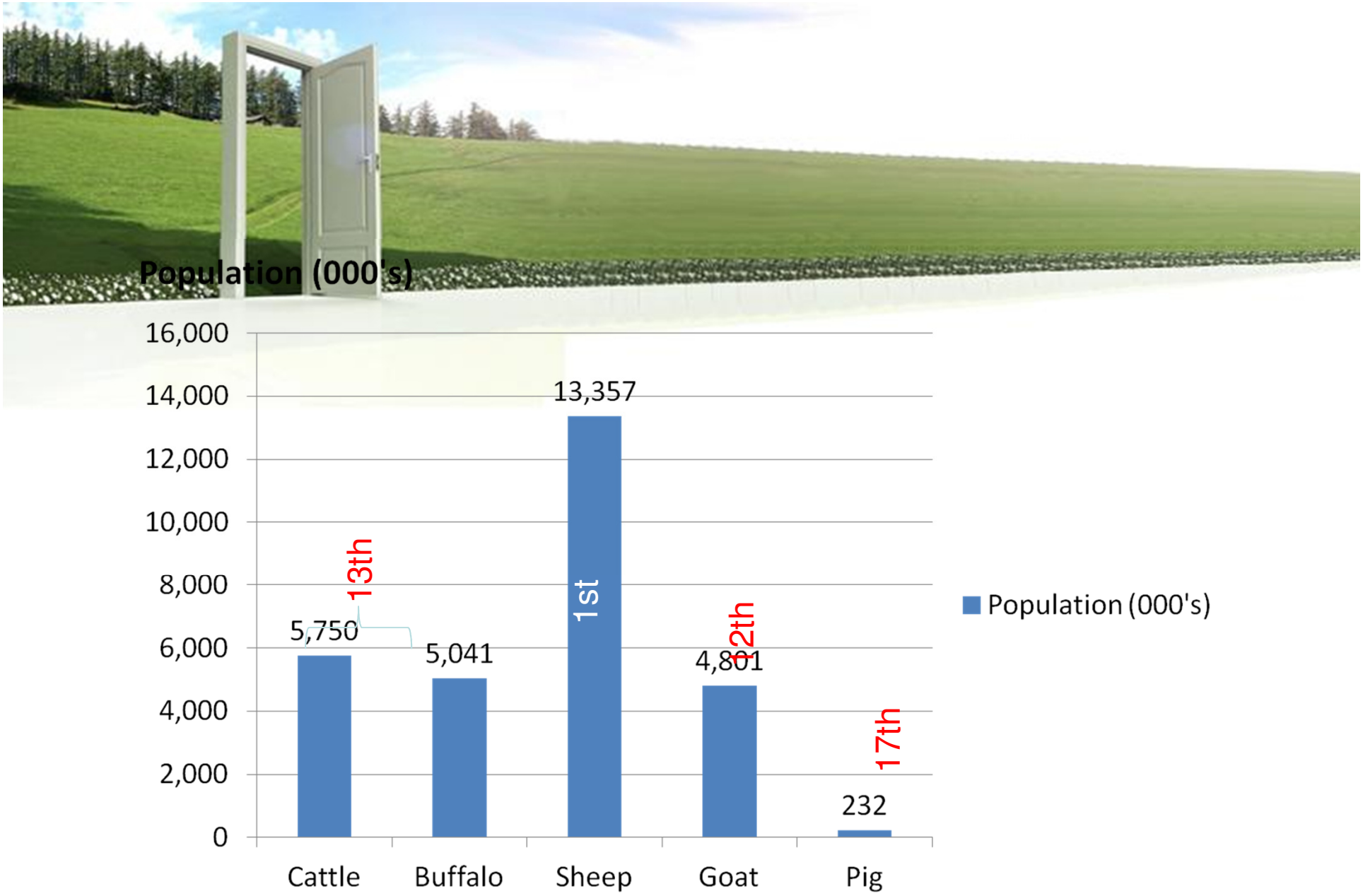
29 lakh families engaged in livestock sector



Percentage Distribution of Area By Size Holdings in Telangana 2010-11



The average size of land holdings marginally declined to 1.11 hectares during 2010-11
Source: Directorate of Economics and Statistics, Hyderabad



Source: Director of Animal Husbandry, Hyderabad





3rd in egg production with an annual output of 942 crore eggs

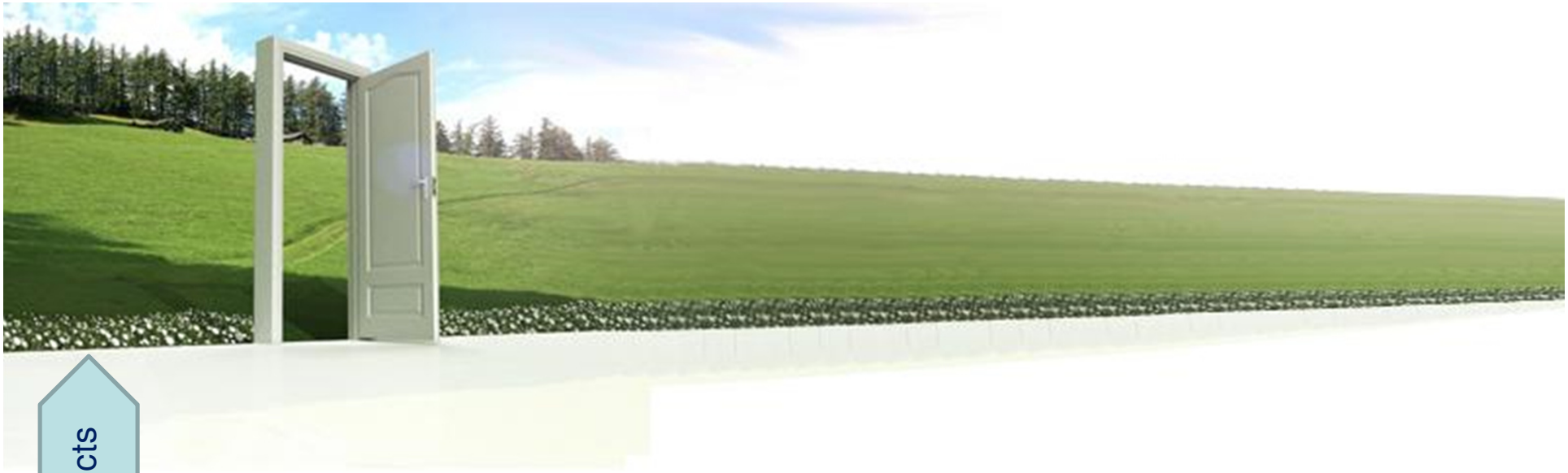


6th in meat production with 4.29lakh MTs



3rd in milk production with 39.51lakh MTs milk

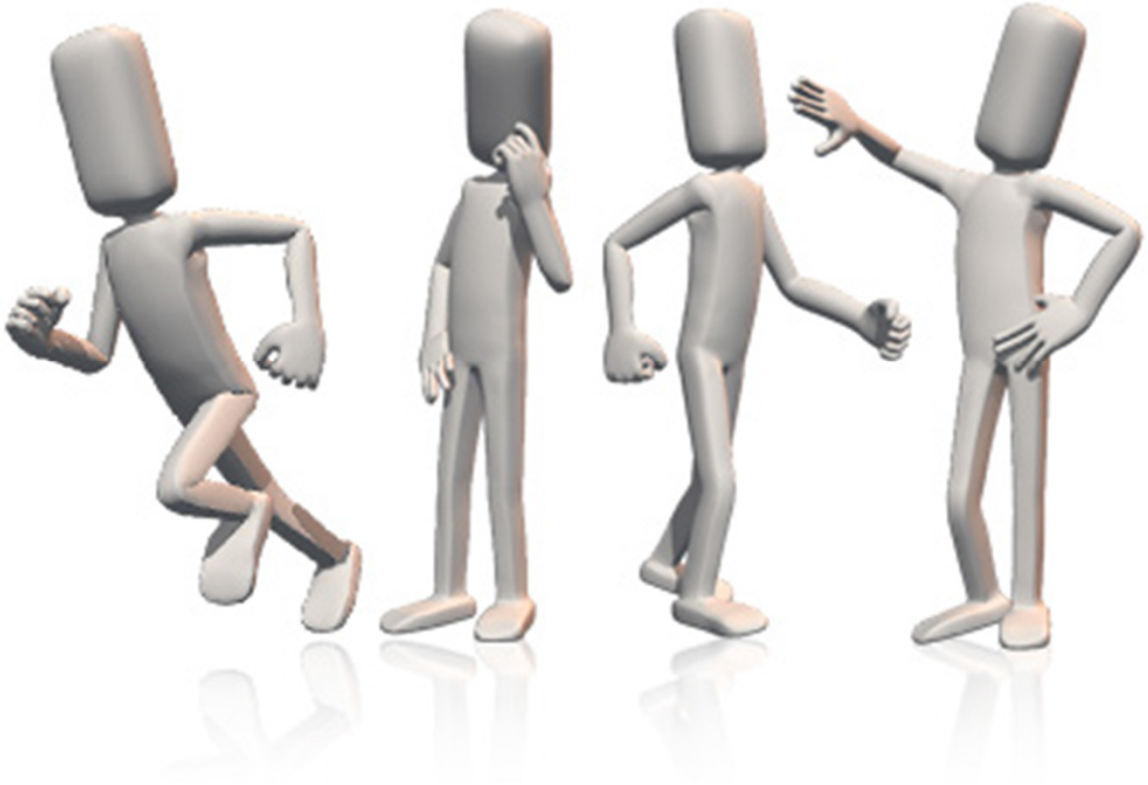
(2012-13 approved estimates of GOI)



increased demand-livestock products

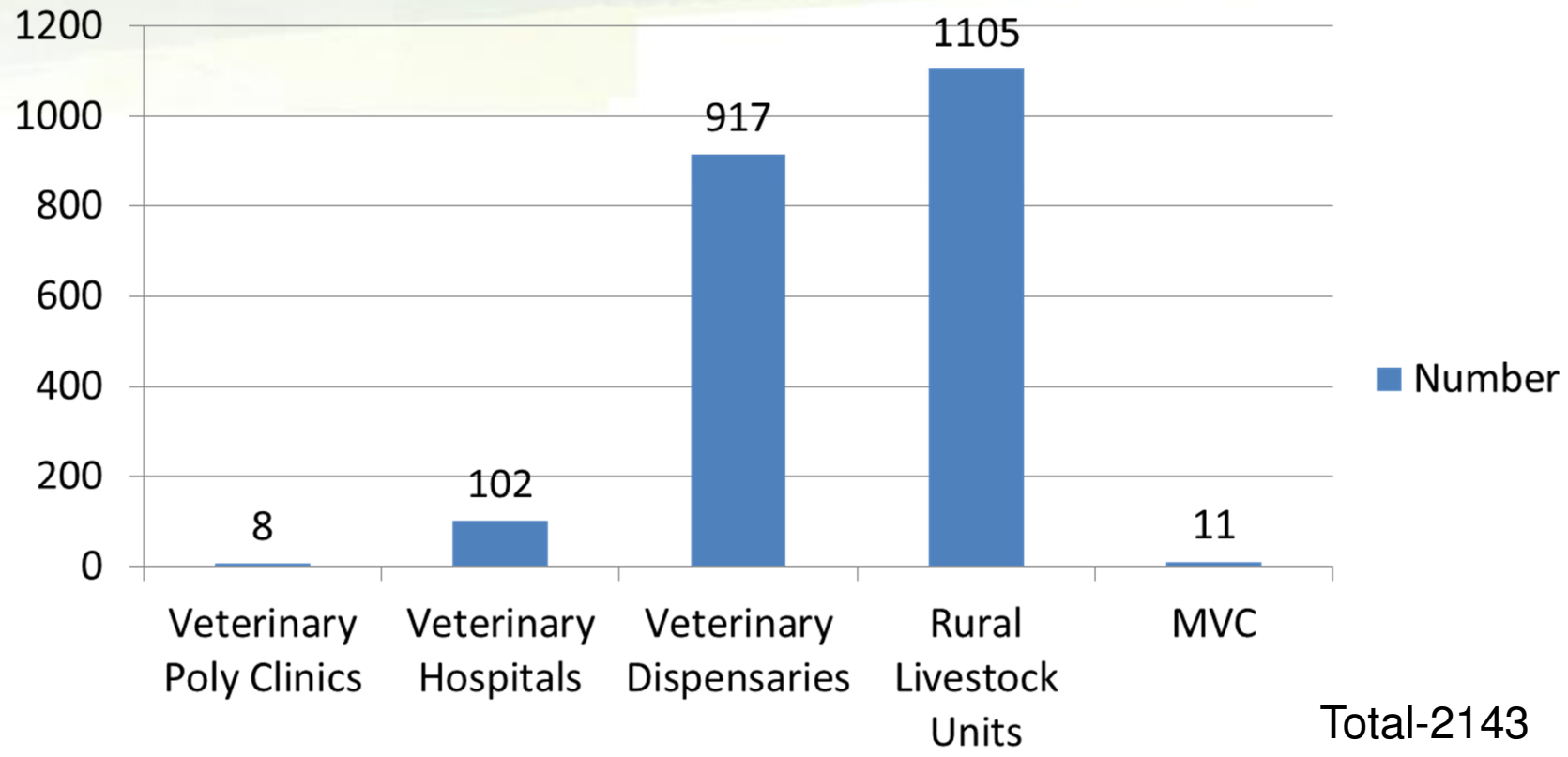
Re-orient Production systems – efficiency and quality

RESOURCES



Veterinary Institutions In Telangana

(As on 31-3-2013)

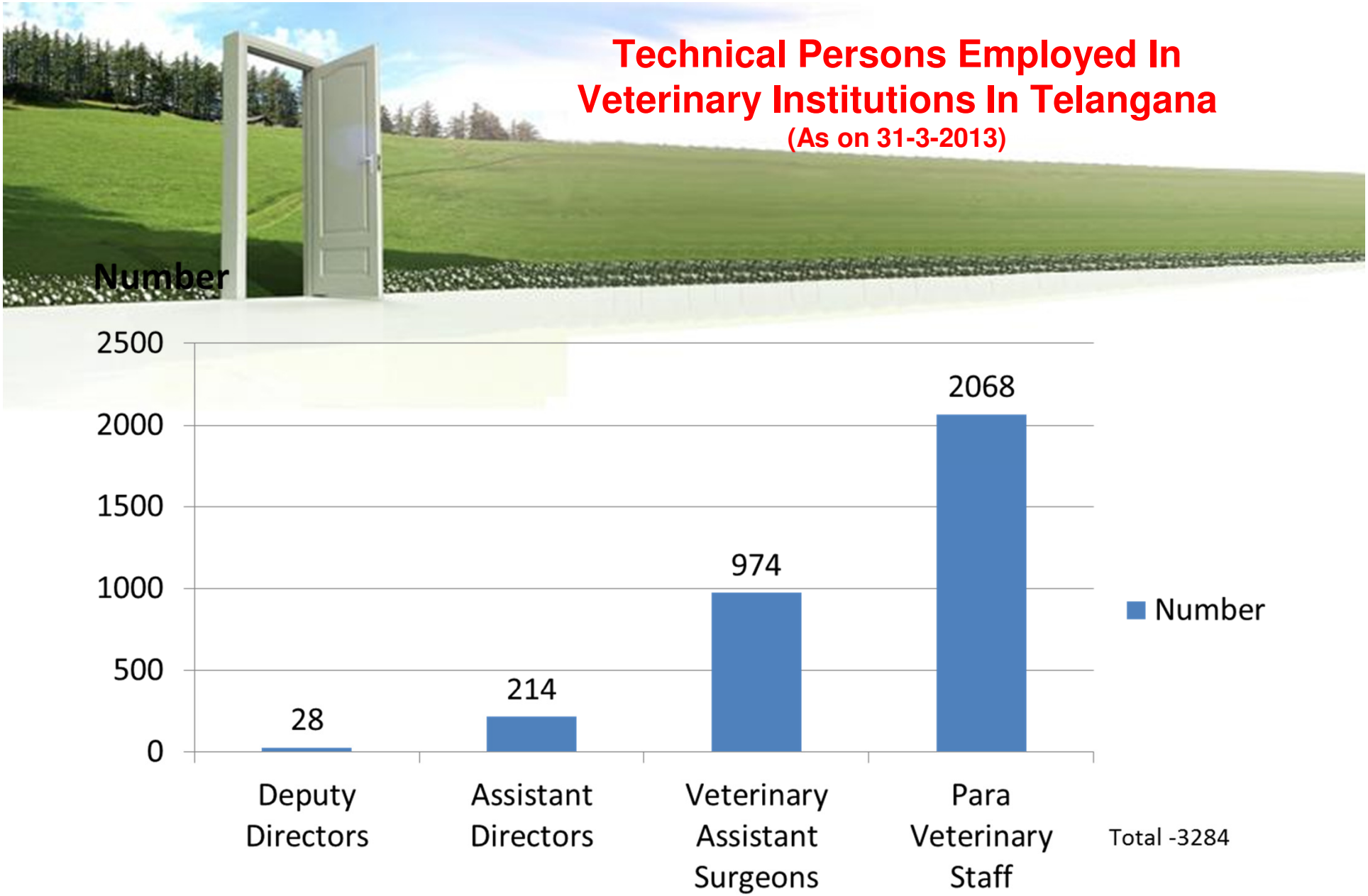


Total-2143

Source: Director of Animal Husbandry, Hyderabad.

Technical Persons Employed In Veterinary Institutions In Telangana

(As on 31-3-2013)



Source: Director of Animal Husbandry, Hyderabad



WHY ICT's?

Extension workers
important source in **transmitting technology** (Sharma 2003)..

- Radio
- television
- publications
- demonstrations
- tele-conferencing
- Internet technology

(Singh et. al. 2003)



- **Only 12% of farmers use Internet in farm decision making.**
- **majority of them use traditional technologies (Cecchini, 2002).**

Radio (77.3%)

News Papers (11.3%)

To help farmers keep pace with rapidly changing agricultural technologies (Vashistha, 1987).



- Farmers' needs are diversified and the knowledge required to address them is beyond the capacity of the grass root level extension functionaries“
- The weak linkages
- Information and communication networks are expanding quickly.
- number of Internet connections in India has crossed the two million mark
- the number of telephone connections is over 22 million.



ABROAD: for the study and improvement of various aspects of livestock production, research and education

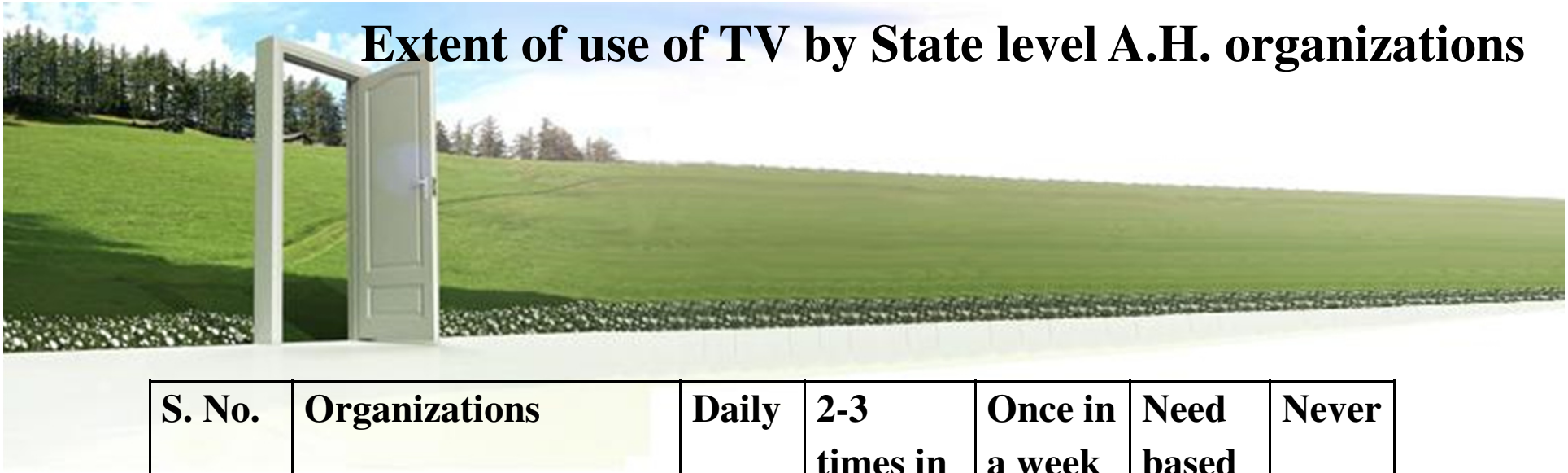
- Livestock disease control
- Dairy herd management
- Livestock production
- Marketing of livestock and livestock produce



ICT's can be tried?

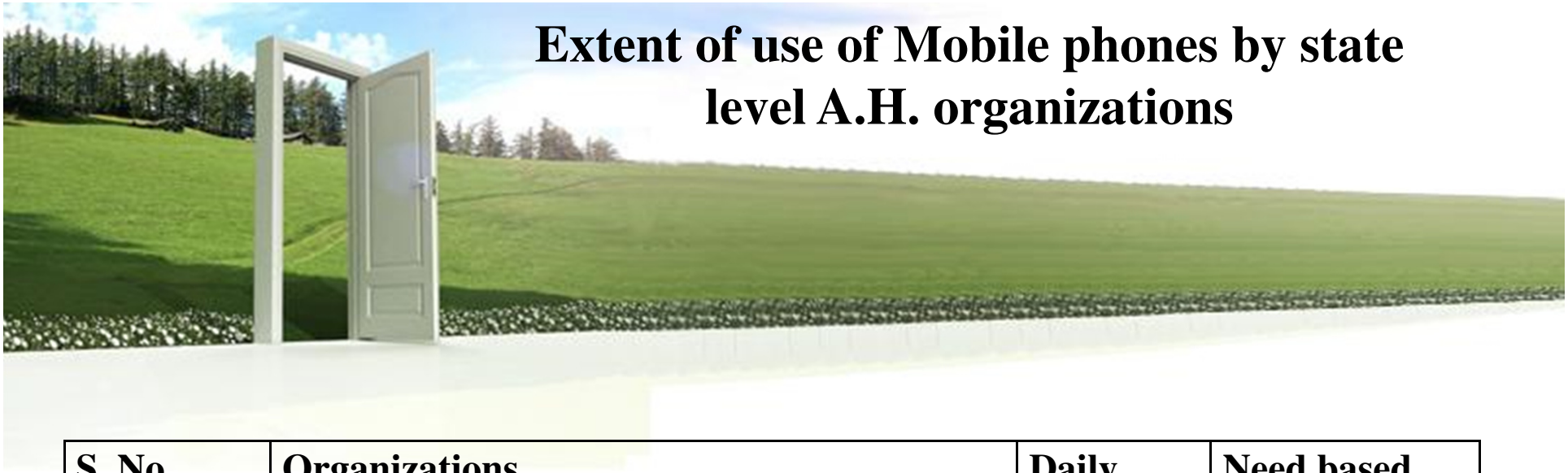
Table: Extent of use of Radio by State level A.H. organizations

S. No.	Organizations	Daily	Need based	Never
	State A.H. Department	√		
	Commissionerate of Rural Development			√
	APLDA			√
	APMDC			√
	SMILDA			√
	SPVNR TSU VAFS (earstwhile under SVVU)			√



Extent of use of TV by State level A.H. organizations

S. No.	Organizations	Daily	2-3 times in a week	Once in a week	Need based	Never
	State A.H. Department			√		
	Commissionerate of Rural Development					√
	APLDA				√	
	APMDC					√
	SMILDA				√	
	SPVNR TSU VAFS (earstwhile under SVVU)				√	



Extent of use of Mobile phones by state level A.H. organizations

S. No.	Organizations	Daily	Need based
1	State A.H. Department	√	
2	Commissionerate of Rural Development		√
3	APLDA	√	
4	APMDC	√	
5	SMILDA	√	
6	SPVNR TSU VAFS (earstwhile under SVVU)	√	

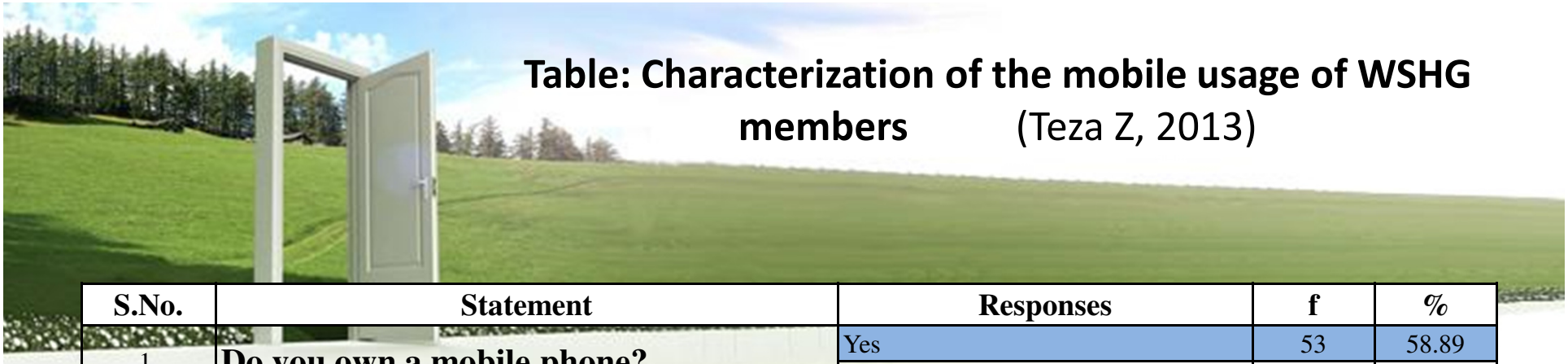


Table: Characterization of the mobile usage of WSHG members (Teza Z, 2013)

S.No.	Statement	Responses	f	%
1.	**Do you own a mobile phone?**	Yes	53	58.89
		No	37	41.11
2.	**What other features of mobile phone do you use?**	FM	21	23.33
		SMS	47	52.22
		Camera	16	17.78
		Entertainment	34	37.78
3.	**Frequency of using mobiles**	Frequently	65	72.22
		Occasionally	20	22.22
		Rarely	05	05.56
		Never	00	00.00
4.	**Mobile used for activities like**	Group activities	90	100.00
		Veterinary services	41	45.56
		Bank transactions	43	47.78
		Market related information	21	23.33
		Communication with officers	58	64.44
5.	**Use of mobile phone for livestock based information.**	Yes	30	33.33
		No	60	66.67
6.	**If yes, with whom:**	Veterinary assistant surgeon	02	06.67
		Para-veterinarian	18	60.00
		Others	10	33.33



Table . Benefits of mobile based information to agriculture farmers

Mittal S and Mehar M (2012)

States	Percent of farmers using mobile phone for agricultural information	Get better connected to markets	Getting better prices	Increasing yield
Bihar	51	99.2	65.9	21.1
Haryana	65	99.4	79.5	42.9
Punjab	26	77.8	82.5	49.2
Uttar Pradesh	45	69.7	69.7	29.4
West Bengal	17	65.9	48.8	34.1
Avg.	41	87.2	71.7	34.6



Extent of use of Internet by the state level A.H. organizations

S. No.	Organizations	Daily	2-3 times in a week	Need based
1	State A.H. Department	√		
2	Commissionerate of Rural Development	√		
3	APLDA	√		
4	APMDC	√		
5	SMILDA	√		
6	SPVNR TSU VAFS (earstwhile under SVVU)	√		



Table : Extent of use of Video Conferencing by A.H. organizations

S. No.	Organizations	Fortnightly once	Need based	Never
	State A.H. Department		√	
	Commissionerate of Rural Development		√	
	APLDA			√
	APMDC			√
	SMILDA			√
	SPVNR TSU VAFS (earstwhile under SVVU)			√



Table : Extent of use of Tele conferencing by A.H. organizations

S. No.	Organizations	Fortnightly once	Need based	Never
1	State A.H. Department			√
2	Commissionerate of Rural Development			√
3	APLDA			√
4	APMDC			√
5	SMILDA			√
6	SPVNR TSU VAFS (earstwhile under SVVU)			√



Table : Extent of use of Multimedia CDs by A.H. organizations

S. No.	Organizations	Daily	2-3 times in a week	Once in fortnight	Once in a month	Need based	Never
1	State A.H. Department						√
2	Commissionerate of Rural Development						√
3	APLDA					√	
4	APMDC						√
5	SMILDA	√					
6	SPVNR TSU VAFS (earstwhile under SVVU)					√	

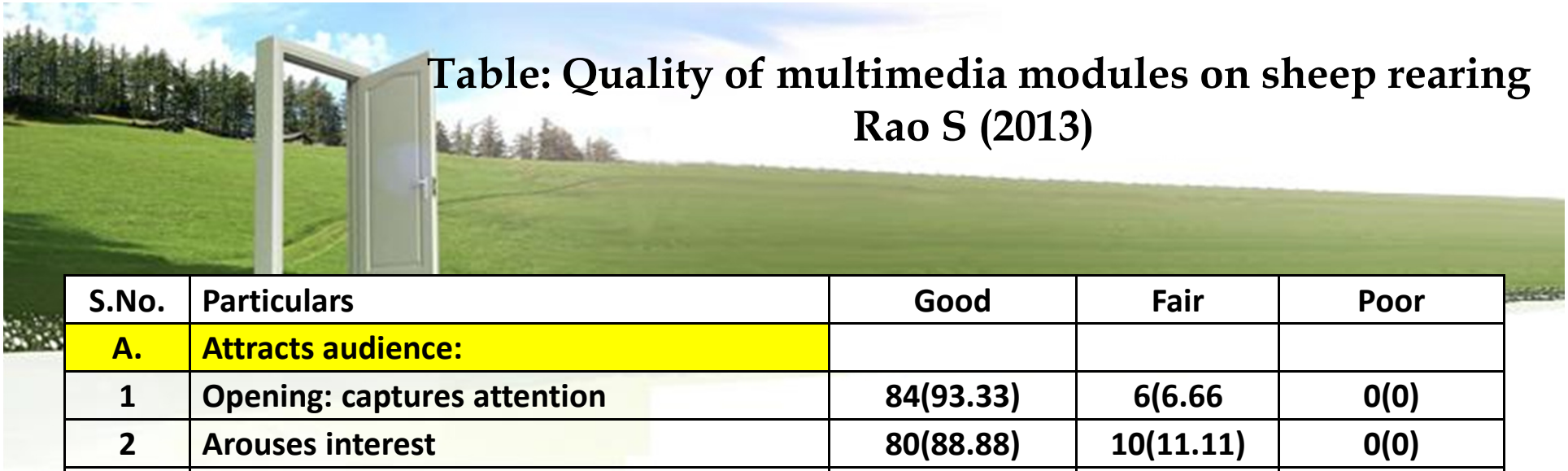


Table: Quality of multimedia modules on sheep rearing Rao S (2013)

S.No.	Particulars	Good	Fair	Poor
A.	Attracts audience:			
1	Opening: captures attention	84(93.33)	6(6.66	0(0)
2	Arouses interest	80(88.88)	10(11.11)	0(0)
3	Purpose clearly mentioned	75(83.33)	15(16.66)	0(0)
4	Easily understood	74(82.22)	16(17.77)	0(0)
B.	Holds Interests:			
1	Interesting to see	82(91.11)	8(8.88)	0(0)
2	Practical facts / visuals	74(82.22)	16(17.77)	0(0)
3	Appropriate to audience	69(76.66)	21(23.33)	0(0)
4	Clear and in logical order	79(87.77)	11(12.22)	0(0)
5	Simple Presentation	82 (91.11)	8(8.88)	0(0)
C	Effect			
1	Holds attention of intended audience	85(94.44)	15(16.66)	0(0)
2	Tells story interestingly	88(97.7)	12(13.33)	0(0)
3	Good conclusion	78(86.66)	12(13.33)	0(0)
4	Well summarized	75(83.33)	15(16.66)	0(0)
5	Selection of suitable format to the topic	85(94.44)	15(16.66)	0(0)
6	Informative and entertaining	88(97.77)	2(2.22)	0(0)



Distribution of respondents according to Knowledge Gain

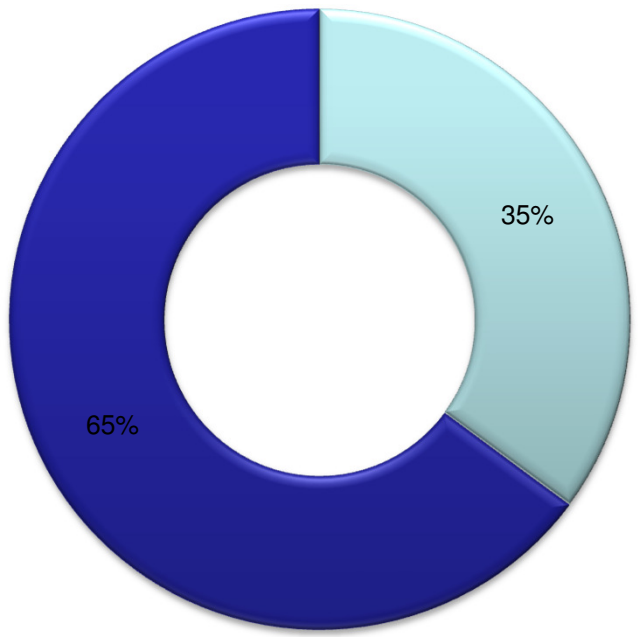


Table: Distribution of respondents according to Applicability of multimedia modules

S.No.	Item	Responses		
		Agree	Undecided	Disagree
I	UTILITY			
1	Very much useful	82 (91.10)	8(8.80)	0(0)
2	Handy to use	85(94.40)	5(5.60)	0(0)
3	Saves time and money	67(74.40)	23(25.60)	0(0)
4	Advantageous over traditional methods	88(97.70)	2(2.30)	0(0)
II	COMPLEXITY			
1	Simple to operate	25(27.70)	65(72.30)	0(0)
2	Simple language	82(91.10)	8(8.90)	0(0)
3	Simple to understand	84(93.30)	6(6.70)	0(0)
III	COMPATABILITY			
1	Able to make decisions with the help of modules	15(16.60)	75(83.40)	0(0)
2	Supplement to the existing practice	74(82.22)	6 (6.60)	10
IV	TECHNICALITY			
1	High level of expertise	27(30.00)	63(69.90)	0(0)
2	Credibility	70(77.80)	20(22.20)	0(0)
3	Accuracy	34(37.70)	56(62.30)	0(0)
4	No discrepancy in the message	4(4.40)	86(95.50)	0(0)
V	FEASIBILITY			
1	Suitable to existing information needs	84(93.30)	6(6.70)	0(0)
2	Affordability/Cost effective	17(18.80)	73(81.20)	0(0)
3	New aid for transfer of technology	65 (72.22)	10 (11.11)	15 (16.7)
4	Can be used at farmers level	54(60.00)	20 (22.22)	16 (17.8)

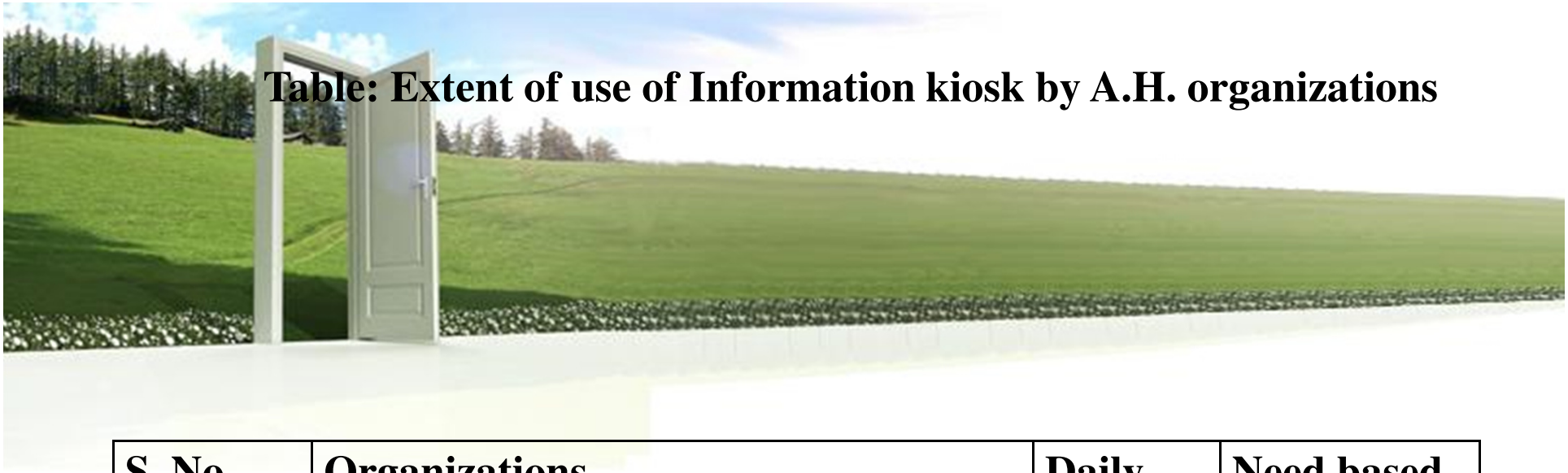


Table: Extent of use of Information kiosk by A.H. organizations

S. No.	Organizations	Daily	Need based
1	State A.H. Department		√
2	Commissionerate of Rural Development		√
3	APLDA		√
4	APMDC		√
5	SMILDA		√
6	SPVNR TSU VAFS (earstwhile under SVVU)		√



Table : Extent of use of Personal Computers by A.H. organizations

S. No.	Organizations	Daily
1	State A.H. Department	√
2	Commissionerate of Rural Development	√
3	APLDA	√
4	APMDC	√
5	SMILDA	√
6	SPVNR TSU VAFS (earstwhile under SVVU)	√



Global Early Warning System (GLEWS)

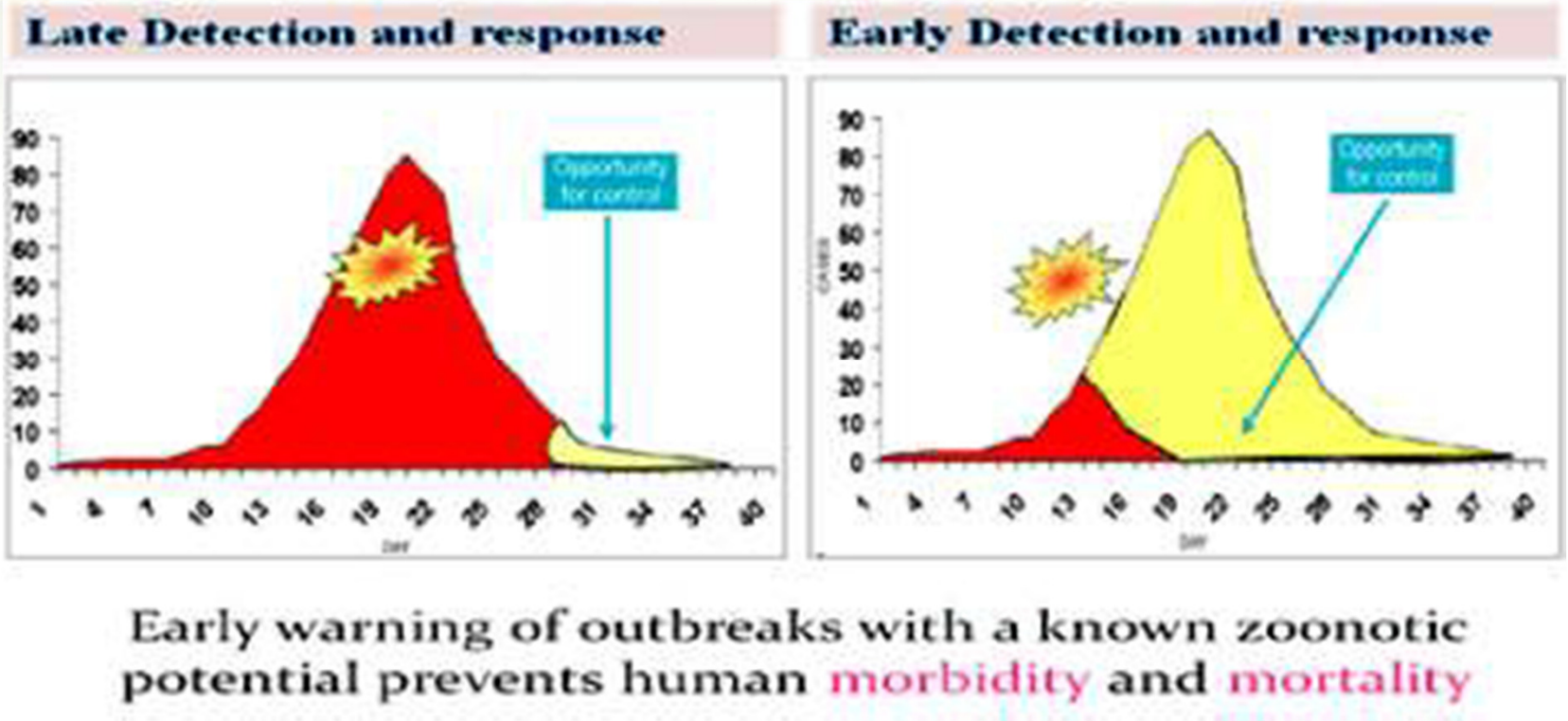
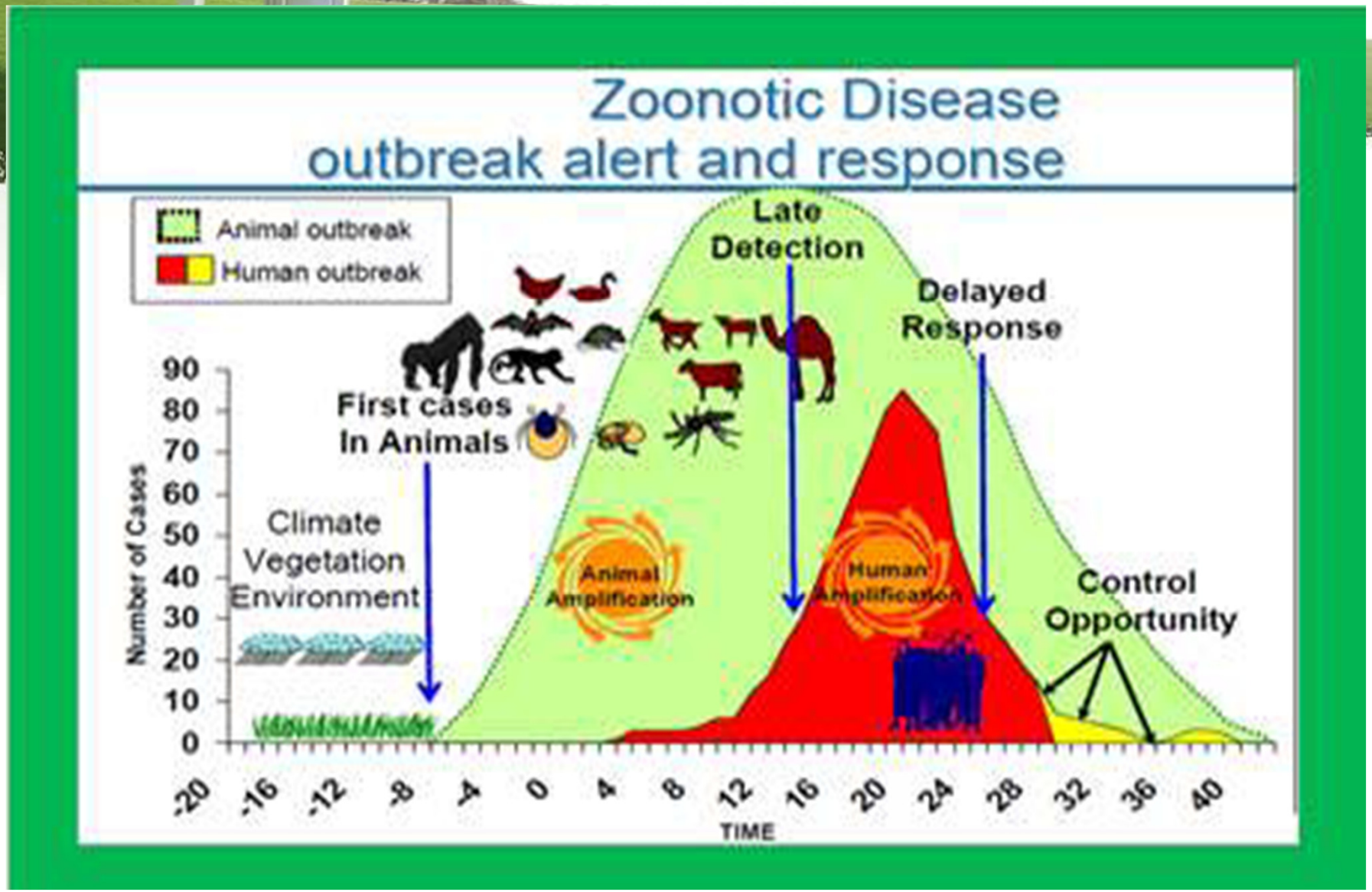


Figure-1. Early and late detection of disease and opportunity to control


Zoonotic Disease
outbreak alert and response
Animal outbreak
Human outbreak
Late
Detection
Delayed
Response
First cases
In Animals
Climate
Vegetation
Environment
Animal
Amplification
Human
Amplification
Control
Opportunity
Number of Cases
90
80
70
60
50
40
30
20
10
0
-20
-16
-12
-8
-4
0
4
8
12
16
20
24
28
32
36
40
TIME



Extent of Use of ICT Tools

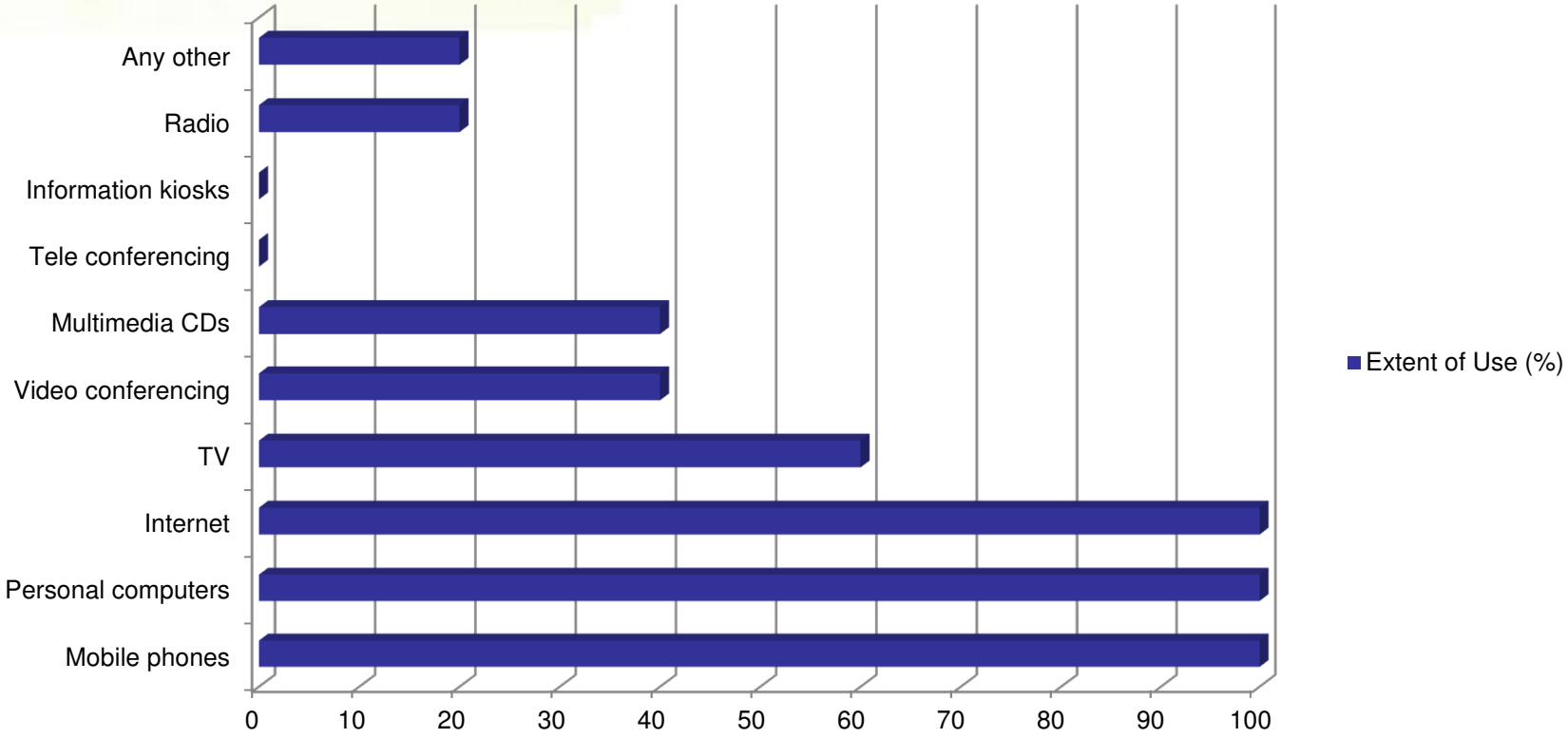




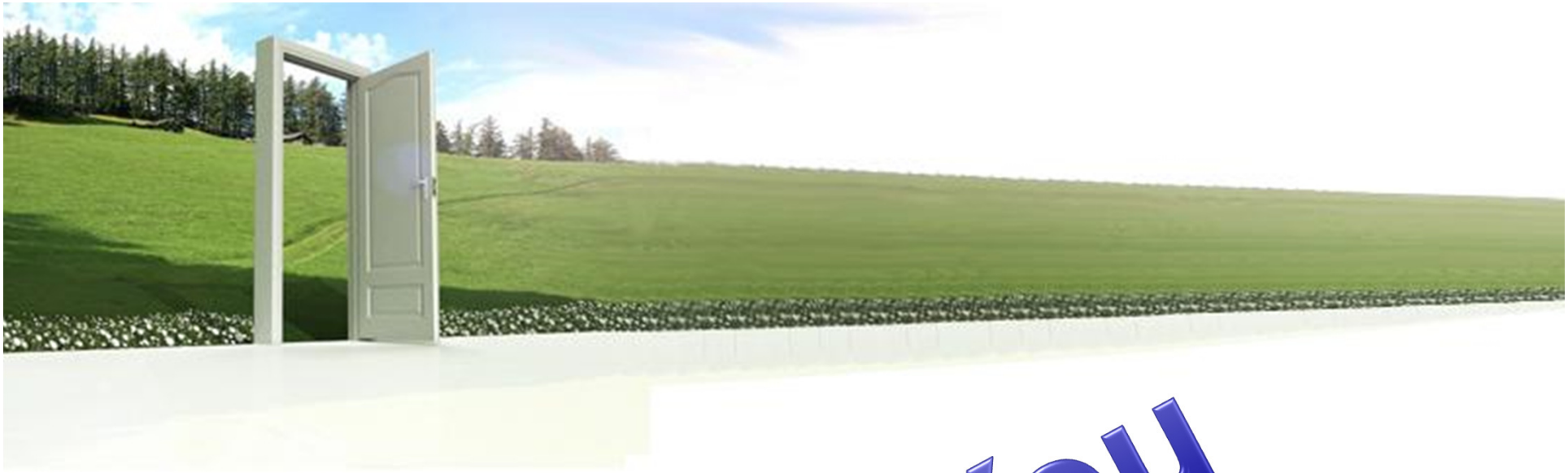
Table: Constraints faced by the various categories of organizations in utilizing the ICT tools

S.No.	Constraints	F %
1.	Inadequate technically competent personnel in using ICTs	7 (21)
2	Problems of maintenance/ Poor maintenance of ICT tools	6 (18)
3	Insufficient budget allocation for ICTs	6 (18)
4	Erratic Internet connectivity	6 (18)
5	Lack of upgradation of ICT equipment	5 (15)
6	Problem of viruses and junk mails	5 (15
7	Insufficient number of ICT tools in the organization	4 (12)
8	Technical and Infrastructure problems encountered while using ICTs	4 (12)
9	Lack of training to employees regarding ICTs 2	2 (6)
10	Lack of latest ICT infrastructure	1 (12.5)
11	High cost of ICTs	1 (3)
12	Restriction of use of ICT tools to limited areas of A.H. only	1 (3)



Conclusion:

- Enabling ICT to put "People First“
- Necessary, But Not Sufficient RASHEED SULAIMAN et al 2012

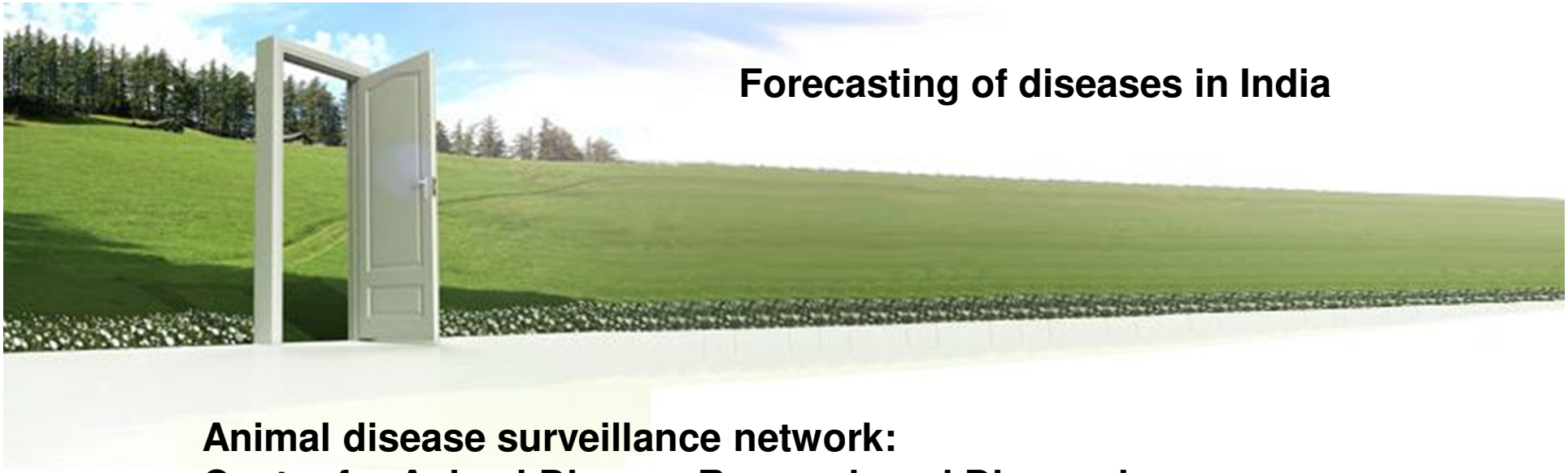


Thank You



Disease surveillance, reporting, and epidemiological analysis, are supported by information systems that enable integration, analysis and sharing of animal health data combined with relevant layers of information such as socioeconomic, production and climatic data.
The convergence of factors such as the availability of multi-temporal satellite data and geo-referenced epidemiological data, collaboration between scientists, biologists and the availability of sophisticated, statistical GIS creates a fertile research environment.

Global Early Warning System (GLEWS): that formally brings together human and veterinary public health systems and application of environmental data for study of diseases like avian influenza and Rift valley fever which offers the capability to demonstrate vector-environment relationships and potentially forecast the risk of disease outbreaks or epidemics

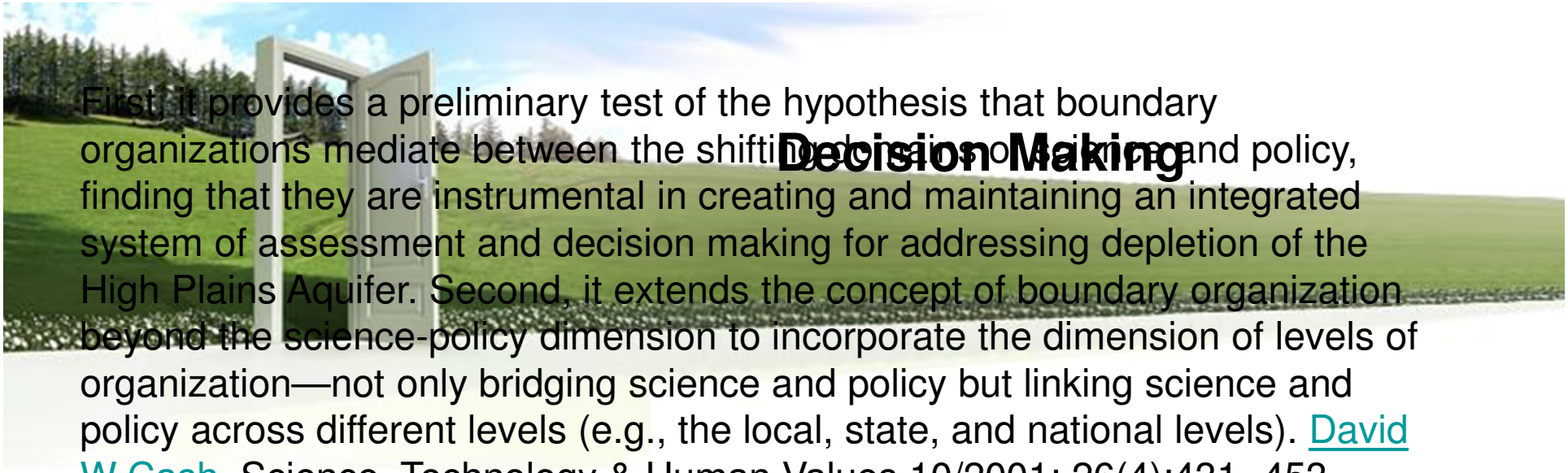


Forecasting of diseases in India

Animal disease surveillance network:
Centre for Animal Disease Research and Diagnosis (CADRAD)
Disease surveillance and ICAR: [56, 57]
Project Directorate on Foot and Mouth Disease (PDFMD)
Project Directorate onAnimal DiseaseMonitoring and Surveillance (PD_ADMAS)
High Security Animal Disease laboratory (HSADL, IVRI)

“Epi- InfoTM (Analysis Project On Livestock Disease Forecasting/Forewarning)”
“NADRES(National Animal Disease Referral Expert System)”

D. P. Kshirsagar et al, 2013, Veterinary World



Decision Making

First, it provides a preliminary test of the hypothesis that boundary organizations mediate between the shifting domains of knowledge and policy, finding that they are instrumental in creating and maintaining an integrated system of assessment and decision making for addressing depletion of the High Plains Aquifer. Second, it extends the concept of boundary organization beyond the science-policy dimension to incorporate the dimension of levels of organization—not only bridging science and policy but linking science and policy across different levels (e.g., the local, state, and national levels). David W Cash, Science, Technology & Human Values 10/2001; 26(4):431 -453. DOI:10.1177/016224390102600403 · 2.41 Impact Factor

Livestock extension services seek to impart the necessary skills to the farmers for undertaking improved animal husbandry operations, to make available timely information and improved practices in an easily understandable form suited to their level of literacy and awareness and to create in them a favorable attitude for innovation and change (Benor 1984). Extension is the ongoing process of transferring the useful information to the people (the communication dimension) and then assisting them to acquire the necessary knowledge, skills and attitudes to utilize effectively this information or technology (the educational dimension). Thus extension is the central mechanism in the livestock development process, both in terms of technology transfer and human resource development (Samanta 1993).