

## Study of human and Asiatic Jackal (*Canis aureus*) conflict from Bagh district, Azad Jammu and Kashmir, Pakistan

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### ABSTRACT

**Introduction:** This species recorded from all over Baluchistan, Punjab, Sindh and Chitral, Hazers, Murree, Kunhar valley, Quetta, Shogran and edges of Himalayan. The *Canis aureus* is the widely distributed and arid short grasslands, prefer dry open and steppe landscapes. *C. aureus* live in family or groups consisting of a father, a mother and with their offspring. *C. aureus* social unit is fundamentally built from a mated couple and its young. This study has been designed to collect detailed about human-Asiatic jackal conflict in the selected sites of district Bagh.

**Material and Method:** Data were collected through questionnaire (100) that was consist of respondent profile, human sharing land with Asiatic jackal, livestock and agriculture management and effective methods to control Asiatic jackal.

**Results:** During the study noted that large numbers of the respondents were unhappy due to the presence of the Asiatic jackal. Most of the inhabitants visit daily to their agriculture and also spent most of time with livestock to protect them. It is documented that local people is used different techniques to protect crops and livestock viz. i). poison, ii). dog and iii). stay with livestock. Most of respondent said that if the Asiatic jackal population is decreased than it might be effective.

**Conclusion:** It is concluded that this species is producing damage in the study area and most people of the area want to reduce its population.

**Key words:** Jackal, Conflict, Poison, Livestock

## INTRODUCTION

*Canis aureus* is native in Viet Nam, Uzbekistan, Ukraine, Turkmenistan, Turkey, Thailand, Tajikistan, Syrian Arab Republic, Sri Lanka, Slovenia, Slovakia, Serbia, Saudi Arabia, Russian Federation, Romania, Qatar, Pakistan, Nepal, Kazakhstan, Jordan, Italy, Iraq, Iran, India, Hungary, Greece, Georgia, Czechia, Croatia, Cambodia, Bulgaria, Bhutan, Bangladesh, Azerbaijan, Austria, Armenia, Albania and Afghanistan. This species is Vagrant in Poland, Netherlands, Lithuania, Latvia, Germany, France, Estonia, Denmark and Belarus (Hoffmann *et al.*, 2018). This species recorded from all over Baluchistan, Punjab, Sindh and Chitral, Hazers, Murree, Kunhar valley, Quetta, Shogran and edges of Himalayan (Roberts, 1997). The *Canis aureus* is the widely distributed and arid short grasslands, prefer dry open and steppe landscapes (Sillero-Zubiri *et al.*, 2004). *C. aureus* live in family or groups consisting of a father, a mother and with their offspring. *C. aureus* social unit is fundamentally built from a mated couple and its young (Ivory, 1999).

The general origin of *C. aureus* is the Indo-Pakistan. *Canis aureus* eat rodents, fruit, beetles, scorpion, girds, mongoose (Prakash, 1959), vegetable, fishes (Schaller, 1967), lizards and snakes and hedgehog (Roberts, 1997).

Agriculture intensification, which is the main economic activity for the people, has been the major risk to the whole ecology. Most of the lands have been transformed into pastoral and agricultural lands. Major trees have been used for construction and firewood (Simeneh, 2010). Due to habitat loss and decline of food, this species moves to urban and rural habitats for foods and conflicts is created with human (Altaf, 2016). This study has been designed to collect detailed about human-Asiatic jackal conflict in the selected sites of district Bagh.

## MATERIALS AND METHODS

**Study area:** Bagh is mountainous, falls in the lesser Himalayas zone and covered with coniferous. The elevation is from 1500 to 2500 meters. Bagh is consist of streams i.e. Mahl Nala, and Betar Nala (Bibi *et al.*, 2013).

**Methodology:** During this study following question were asked from the respondents;

Having agriculture land?

How often are you on the agriculture?

How often wild boar loss your agriculture?

How often you see sign of Asiatic jackal on your agriculture?

How you feel about sharing the land with Asiatic jackal?

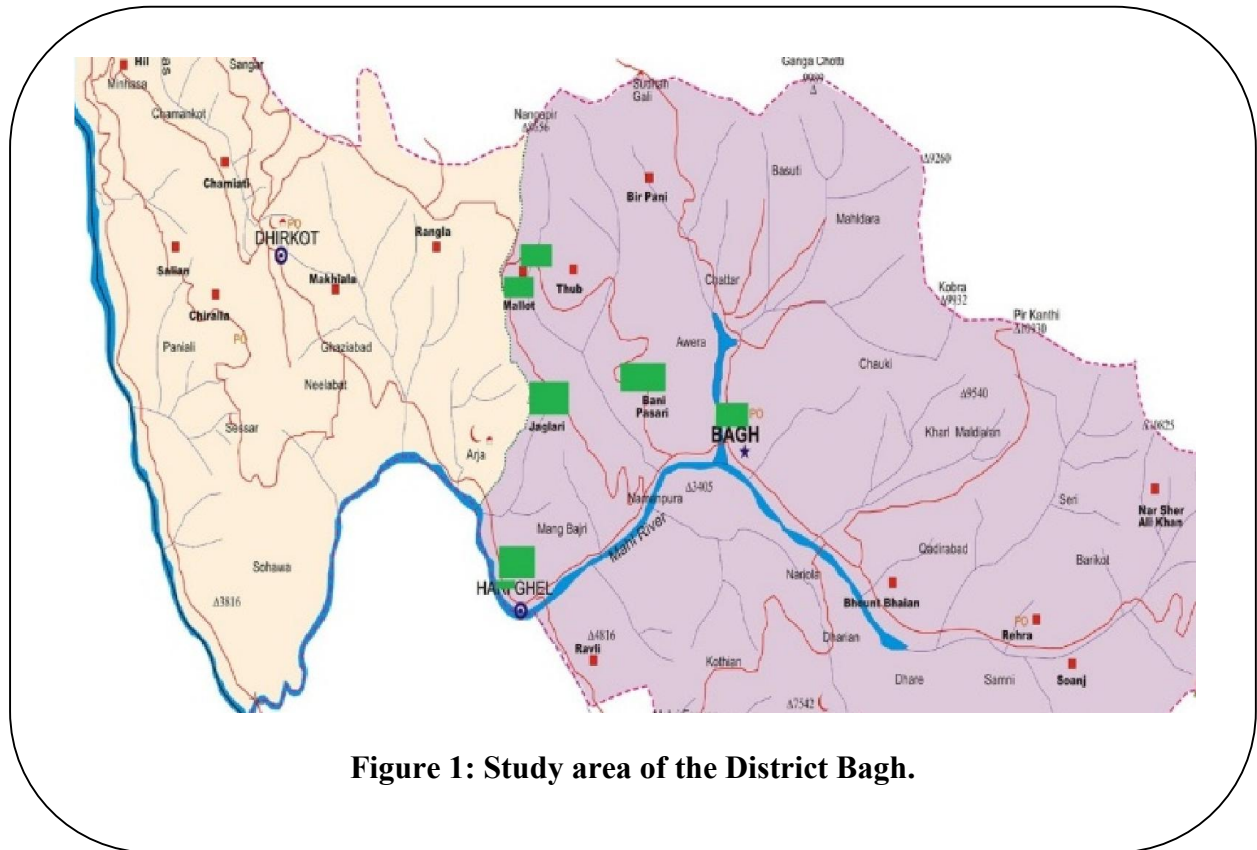
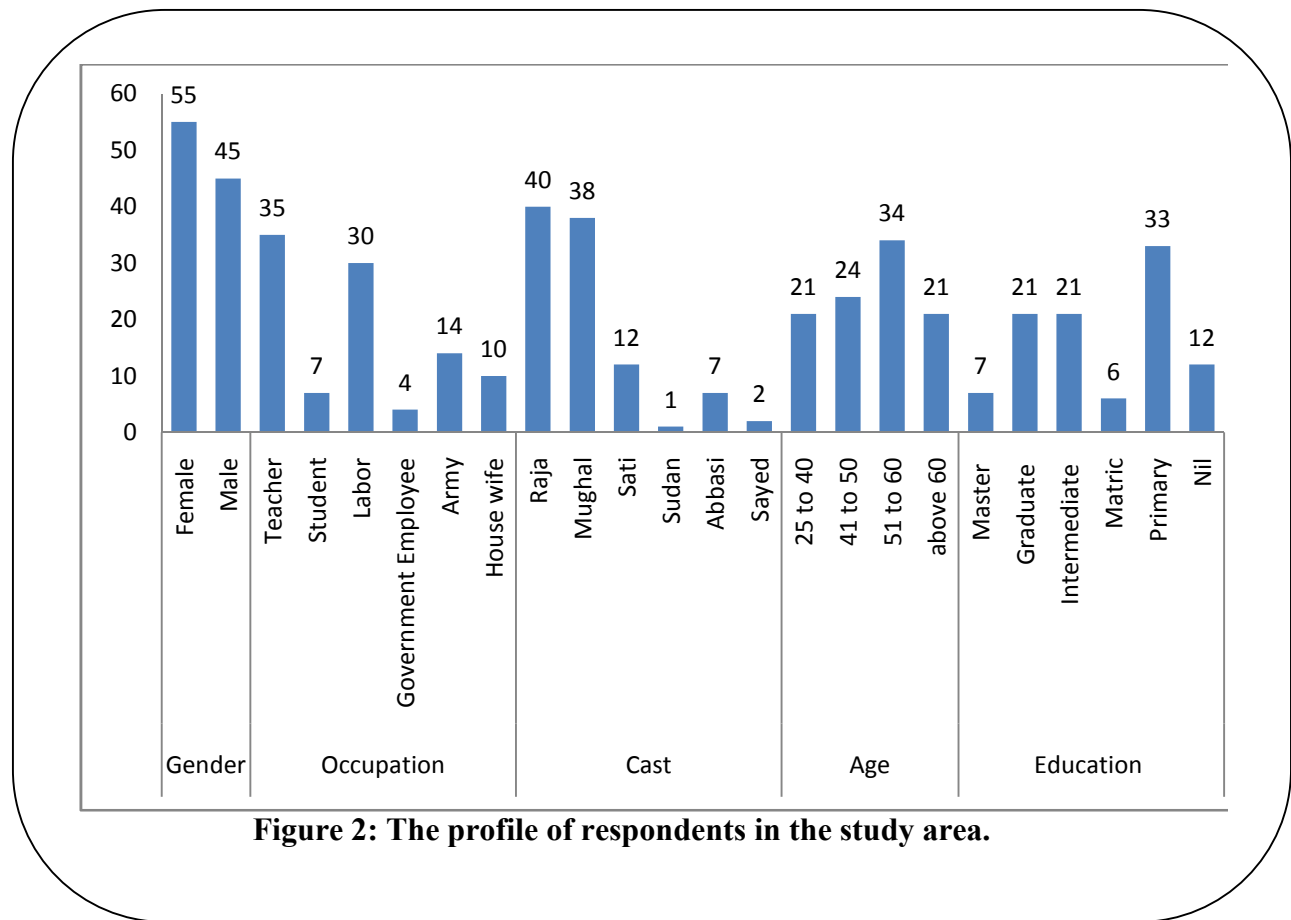


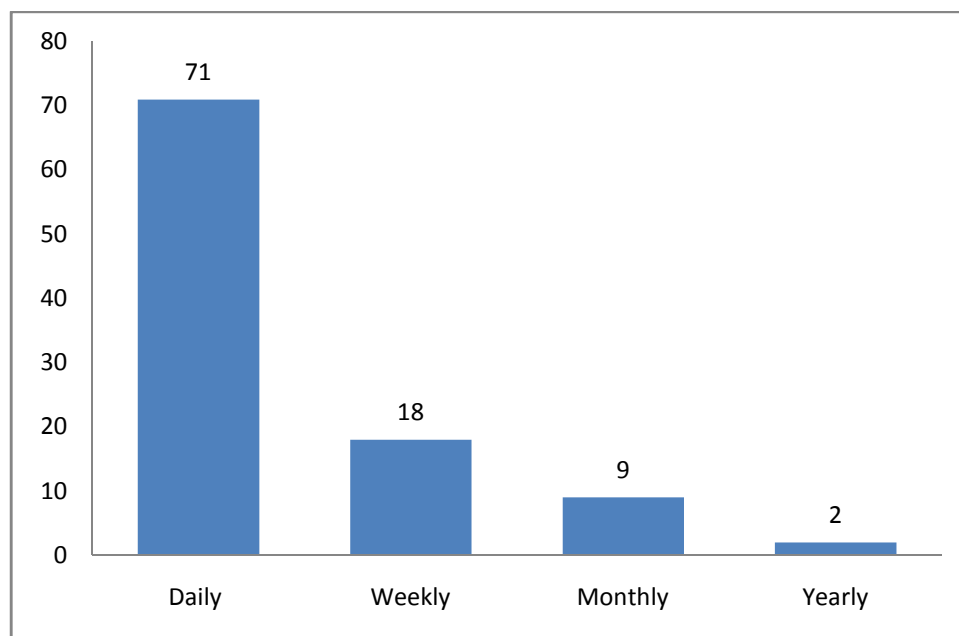
Figure 1: Study area of the District Bagh.

## RESULTS AND DISCUSSION

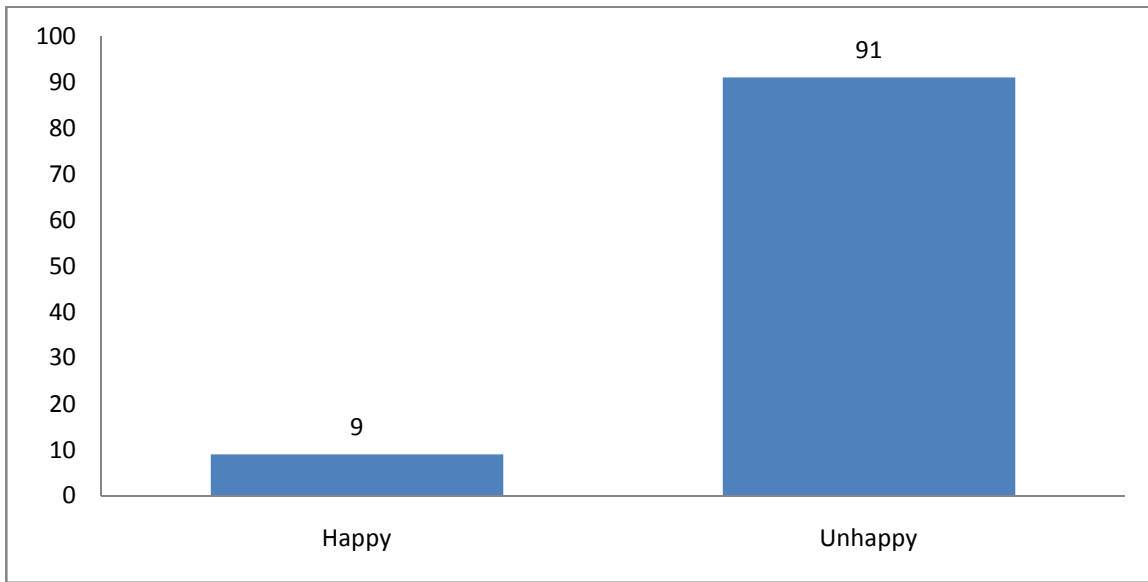
Data collected from Male (45) and Female (55) respondents, all are Muslim and age of respondents as 25 to 40 (numbers were as 21), 41 to 50 (numbers were as 24), 51 to 60 (numbers were as 27), 60 and above (numbers were as 21). During the survey noted that selected respondents having education as; Matric (n=6), Secondary School (n=21), Graduate (n=21) and Postgraduate (n=2); while the cast of respondents as Raja (numbers were as 40), Mughal (n=38), Sati (n=12), Sudhan (n=1), Abbasi (n=7) and Sayed (n=2) as shown in Figure 2. Altaf (2016) is used similar respondent profile.



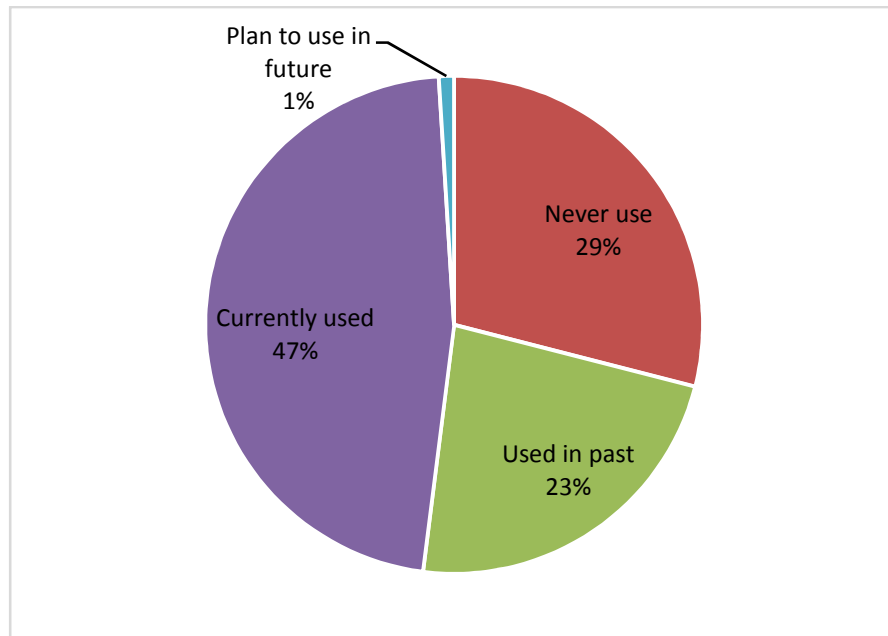
During the study noted that many of the informant was unhappy due to the presence of the Asiatic jackal and visit daily (Figure 4 and 5). During the study recorded that most inhabitants was used poison to Asiatic jackal (Figure 5). During the study recorded that mostly informants said that they save the livestock with the help of dog (Figure 6). During the study recorded that few inhabitants were used fenced to save livestock (Figure 7). During the survey noted that mostly informants used the record of livestock (Figure 8). During the study reported that mostly respondent said that if the predator population is decreased than it might be effective and other said that may not effective and do not know (Figure 9). Chughtai *et al.* (2018) noted the human-Indian wild boar conflict in Bagh district, Pakistan. Safeer *et al.* (2018) and Azad *et al.* (2018) noted that *Hystrix indica* and *Vulpes vulpes* are damaged to agriculture respectively in district Bagh, Pakistan.



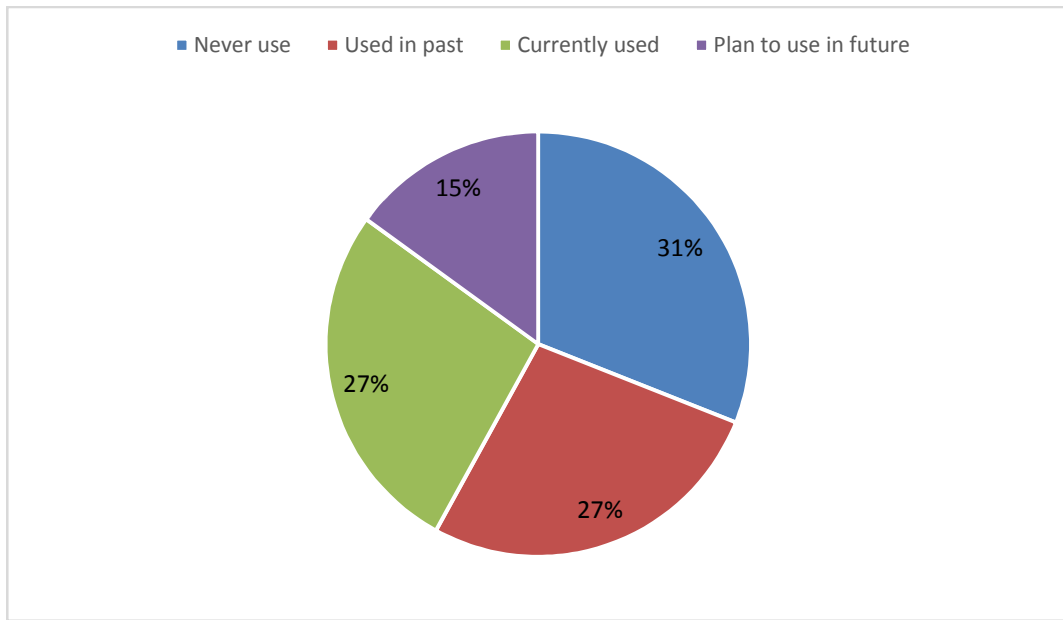
**Figure 3: Respondents visit to personal agriculture area.**



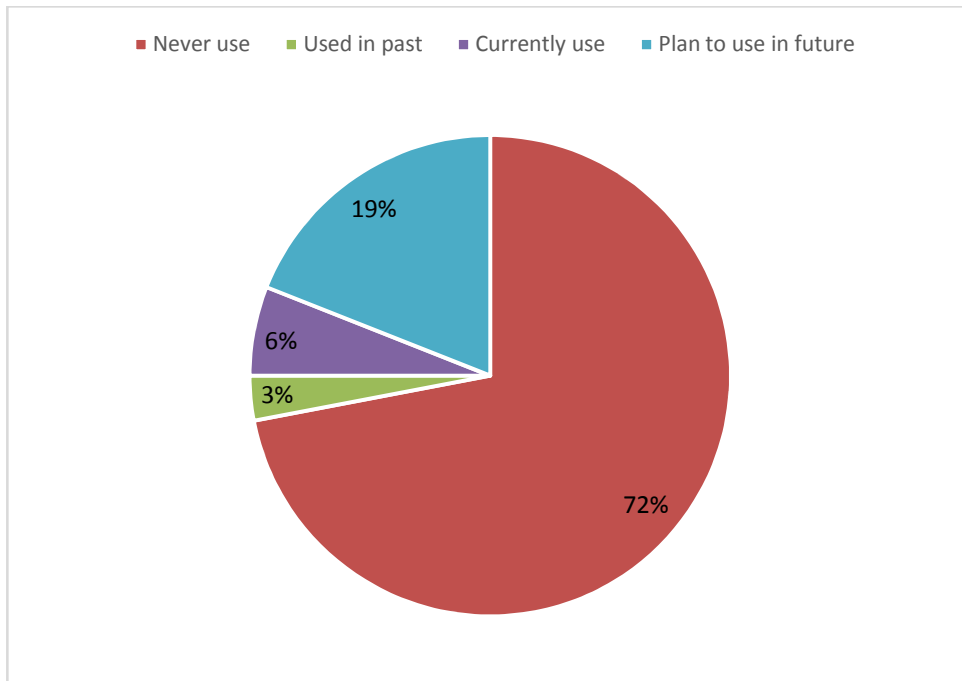
**Figure 4: Respondents response about sharing land Asiatic jackal.**



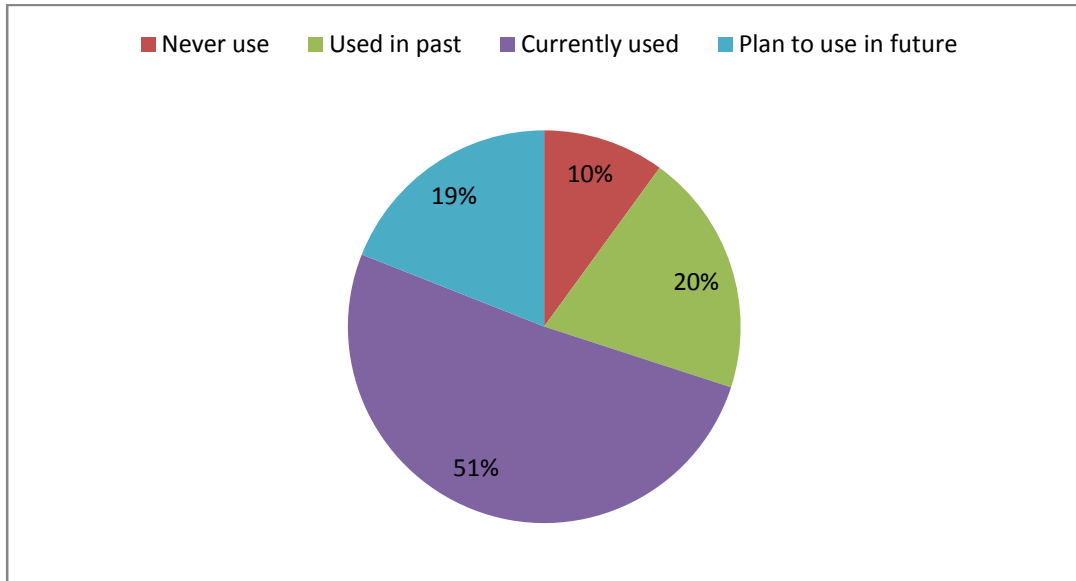
**Figure 5: Respondents response about poison used to remove Asiatic Jackal.**



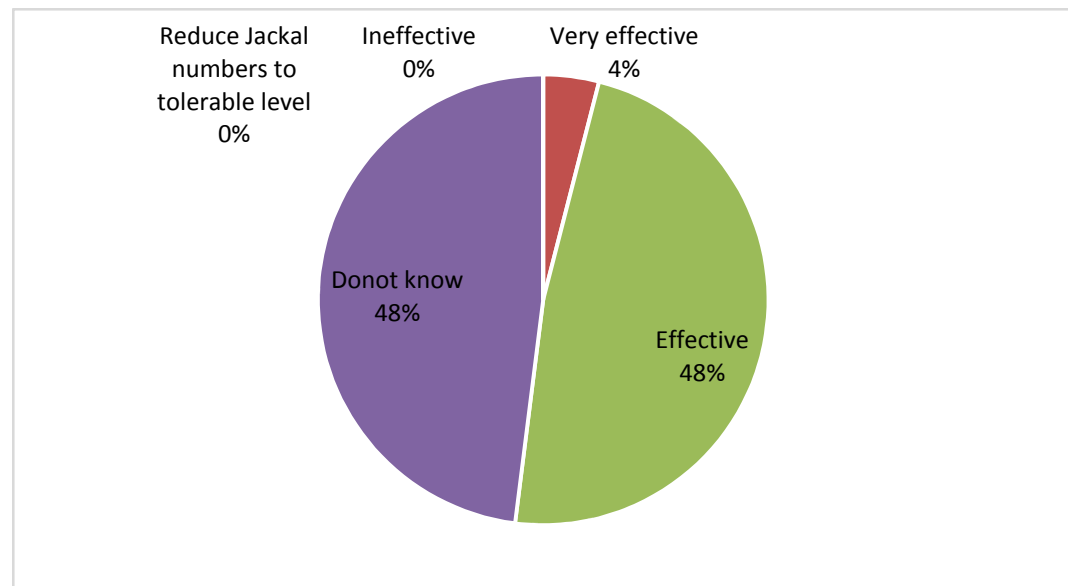
**Figure 6: Save the livestock with the help of dogs.**



**Figure 7: Respondents response about fenced used to save livestock.**



**Figure 8: Respondents response about keeps records of live stocks numbers, birth and death.**



**Figure 9: Respondents response about reduction of predator number to tolerable range.**



**Conclusion:** It is concluded that human-Asiatic jackal conflict is present in the Bagh district and most of the inhabitants want to reduce its population.

**Acknowledgements:** Authors are thankful to local people for sharing data about human-Asiatic jackal conflict.

**Availability of data:** We have included all relevant data in the manuscript that were collected during the field survey.

**Authors' contributions:** Younus designed this study and also performed the research; Nazer and Altaf helped in data write up. Manzoor, Safeer and Yasrub were analyzed article and approved as final manuscript.

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