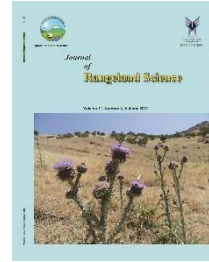


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Research and Full Length Article:

What Drives Ranchers' Intention to Conserve Rangelands: The Role of Environmental Concern (A Case Study of Angoshteh Watershed in Borujerd County, Iran)

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Abstract. There is growing concern about severe rangeland degradation caused mainly by the overstocking and overgrazing of these lands, especially in developing countries. Since ranchers' behaviors and practices are crucial determinants of rangelands conservation, this study was conducted to clarify the underlying constructs of ranchers' intention to conserve rangelands. It is based on an extended theory of planned behavior. The extension was implemented by adding environmental concern. The survey was conducted in 2020. Data were collected through questionnaires completed by a sample of 120 ranchers in the Angoshteh watershed in Borujerd County, Iran. The questionnaire validity was confirmed by faculty members and experts in the field, and its reliability was confirmed in a pilot study by Cronbach's alpha. Data were analyzed through the partial least squares structural equation model method, using SmartPLS 3.2. The results indicated that the extended TPB explains 0.79% of the variance of ranchers' intention to conserve rangelands. According to the results, all three of the TPB's psychological variables, namely attitude towards conserving rangelands ($\beta = 0.58, p < 0.01$), subjective norms ($\beta = 0.20, p < 0.01$), and perceived behavioral control ($\beta = 0.17, p < 0.05$), were related significantly to ranchers' intentions to conserve rangelands. Further, environmental concern had a positive and significant relation to attitude towards conserving rangelands ($\beta = 0.55, p < 0.01$), subjective norms ($\beta = 0.31, p < 0.01$), and perceived behavioral control ($\beta = 0.73, p < 0.01$). In addition, environmental concern was related indirectly and significantly to ranchers' intentions to conserve rangelands through its antecedents. Therefore, policymakers, experts, and extension agents of natural resources can influence the behavior of ranchers with respect to conserving rangelands by emphasizing these variables.

Key words: Rangeland conservation, Environmental concern, Theory of planned behavior, Ranchers, Borujerd

Introduction

Rangelands are one of the most important sources of natural wealth in a country, having particular position in the regulation of the Earth's ecosystem, maintenance of plants' genetic resources, the supply of forage requirements, food security, economic development, and welfare of people (Mousavi *et al.*, 2020). Rangelands are estimated to cover 90 million ha in Iran, occupy nearly 54.8% of the area of the country and 65% of natural resources (Behtari *et al.*, 2019). However, during recent years, these valuable resources have been prone to severe destruction due to immethodical livestock grazing and inappropriate usage made (Rostami *et al.*, 2014; Hatamnia *et al.*, 2016; Behmanesh *et al.*, 2019; Ebrahimi *et al.*, 2016). It should be noted that about 85% of rangelands are located in arid and semi-arid regions, making them more vulnerable and fragile to disturbance through livestock grazing. Furthermore, these ecosystems have been suffering from climate change, overgrazing, and land-use change in recent decades (Behtari *et al.*, 2019). Coping with destructive factors of rangelands and making an effort to revive them are considered as necessary steps to be taken in terms of their sustainable management. Despite actions taken by the Iranian government to control destructive factors and to protect and revive natural resources, the effects imposed by destruction are still considered as restrictive factors in terms of the county's development and growth. Most of the researches were performed in Iran regarding natural resources, including rangelands, concerning technical issues and destructive factors (e.g., Shahbazi and Fayaz, 2020; Gholami *et al.*, 2020; Niknahad Gharmakher *et al.*, 2016); however, many destructive factors in natural resources are rooted in socio-economic problems as well as management method of natural resources i.e., human factor and his behavior. This is why behavioral solutions have to be looking for. In other words, to optimize the current status, environmental behaviors of users,

especially ranchers have to be improved regarding the conservation of natural resources and rangelands. In recent years, more attention has been paid to individuals' attitudes and behaviors towards conserving the environment and natural resources and factors affecting on it (Karimi, 2019, 2017). However, one of the fields less taken into consideration is the protective behavior of ranchers in terms of rangelands. To our knowledge, there is little research examining the effect of psychological factors on Iranian ranchers' intention to conserve rangelands. Therefore, the present research was performed mainly to the aim of studying the intention of ranchers to conserve rangelands and psychological factors having effect on it via an extension of the Theory of Planned Behavior (Ajzen, 1991). Such research could provide insights to policy makers and extension agents of natural resources that can be used to adjust existing policies and extension programs and design new policies and programs to promote the conservation of grasslands by ranchers.

Theoretical Framework

During the past four decades, an effort has been made by various researches to answer one fundamental question: "Why do people perform pro-environmental behavior (PEB) and what are main obstacles in accepting such behavior?" (Kollmuss and Agyeman, 2002). To answer the question, various theories such as Theory of Planned Behavior (TPB: Ajzen, 1991), Value-Belief-Norm theory (VBN: Stern *et al.*, 1999), and Norm Activation Theory (NAT: Schwartz, 1977) have been presented, each of which providing real information about PEB. In terms of social psychology, the TPB has a rational and appropriate decision-making framework widely used in different fields such as the environment for the explanation and prediction of environmental behaviors (Chin *et al.*, 2016; Wang *et al.*, 2019). In the theory, behavior is predicted through behavioral intention and intention has been perceived

under the effects of three motivational factors i.e., attitude towards behavior, subjective norms, and perceived behavioral control (Ajzen, 2002). Intention means readiness of a person to perform some special behaviors having strong direct effect on behavior. Attitude towards behavior means the extent to which concerned behavior is desirable, pleasant, useful or enjoyable by the person and this depends on the judgment of an individual about the effects and consequences of behavior. Subjective norms are indicative of amount of perceived social pressure by the person to perform or not to perform a particular behavior. Perceived behavioral control means peoples' perception regarding their own capability in performing a specific behavior. Briefly speaking, the more desirable would be the attitude of people towards a particular behavior and subjective norm as well as perceived behavioral control, the higher would be motivation level and the intention of them against performing that behavior (Ajzen, 1991). As far as conserving the environment and natural resources are concerned, it has been shown by various studies that three motivational factors make increase to people intentions for the performance of PEB (Bamberg and Möser 2007; Klöckner, 2013; Borges *et al.*, 2016; Savari and Gharechae, 2020). For example, a study performed by Borges *et al.* (2016) on Brazilian ranchers showed that their improved intention to use natural rangelands is affected by subjective norms, perceived behavioral control and attitude. In addition, Yaghoubi Farani *et al.* (2019) studied Iranian farmers and indicated that perceived behavioral control and environmental attitude positively influenced the farmers' responsible environmental behavior.

Despite the fact that in the theory of planned behavior, all predictive factors of behavioral intention have been considered, explanatory power of the model has been tried to be improved through the increase of additional constructs inside the planned behavior model (Chen and Tung, 2014; Tan *et al.*, 2017). In the field of pro-

environmental behavior, environmental concern seems to play an important role in the environmental attitude and behavior of people (Chwialkowska *et al.*, 2020). This is why the construct has been added to the TPB model in the present research.

Environmental concern is a general attitude towards conserving the environment (Dunlap and Van Liere, 1978) and is considered as an emotional trait that can show anxieties, sympathies, love and hatred of an individual towards the environment (Lee, 2009). This variable is one of the most famous variables used to study PEB (Albayrak *et al.*, 2013). Environmental concern may have a direct effect on individuals' intention and behavior to protect the environment and natural resources (Liao *et al.*, 2020; Paul *et al.*, 2016). Based on the TPB, other individual and contextual factors have indirect effects on behavioral intention of individuals through three motivational factors (Fishbein and Ajzen, 2011). Specifically, as suggested by Ajzen and Fishbein (1980), general attitude like environmental concern has an indirect effect on behavior. Therefore, environmental concern can be expected to have an effect on the three motivational factors i.e. attitude towards the conservation of rangelands, social norm, and perceived behavioral control; intention is affected by it through these factors (Fig. 1). In other words, the more the rancher would be concerned about the environment and natural resources and feels responsible, the more positive would be his attitude towards the conservation of natural resources including rangelands. Social norms will also be more felt by him; and he will have higher perceived behavioral control. As shown by some of the studies, there is a positive relationship between environmental concern and three aforementioned motivational factors (Yaghoubi Frani *et al.*, 2019; Chan and Hon, 2020; Paul *et al.*, 2016; Chen and Tung, 2014). For example, a study performed by Chen and Tung (2014) showed that environmental concern has

effect on subjective norms, attitude and perceived behavioral control.

Research Hypotheses

H1: There is a positive relationship between (a) attitude towards the conservation of rangelands; (b) subjective norms; and (c) perceived behavioral

control and ranchers' intention to conserve rangelands;

H2: There is a positive relationship between environmental concerns and (a) attitude towards the conservation of rangelands; (b) social norms; (c) perceived behavioral control; and (d) ranchers' intention for conserving rangelands.

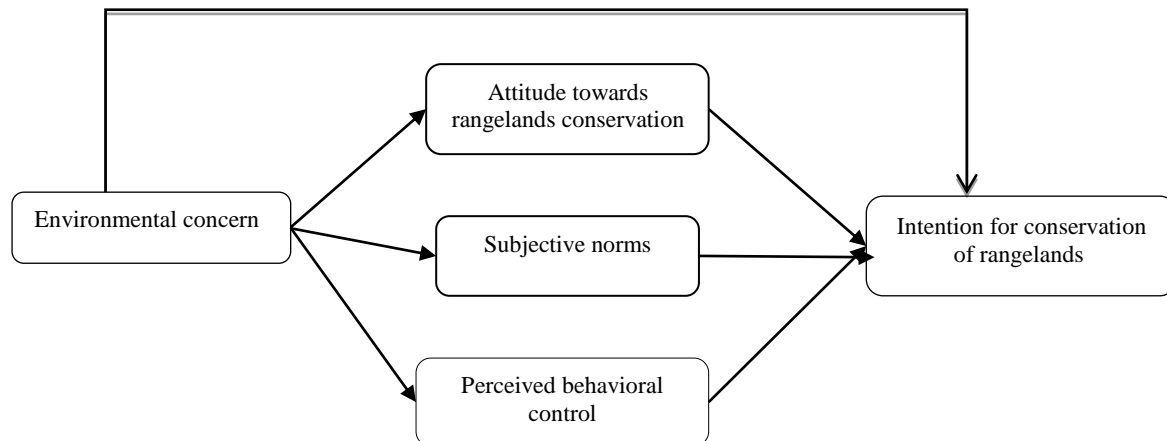


Fig. 1. Theoretical research framework

Materials and methods

This is a correlational-descriptive research in which partial least squares structural equation model (PLS-SEM) method was used to study the research model. There are two strength points for PLS: firstly, there is no need to high volume sample size and data to be normal. Secondly, measurement error would be calculated by PLS and more accurate estimation will be provided from interactive effects (Karimi, 2020). Therefore, the method has been used in various environmental researches (Karimi, 2019). SmartPLS 3.2 was used to analyze data as well. The study population consisted of all ranchers in the Angoshteh watershed in Borujerd county, western Iran (N = 180). Based on the Cochran formula and stratified random sampling method, a sample of 120 ranchers was selected from five villages in the watershed. The survey was conducted in 2020. Research data were collected through a questionnaire including two parts: first part including questions about individual traits of respondents such as age, area of pasture land and irrigated and drylands, fencing the pasture land, having grazing license as

well as education level; and second part including items to measure variables of the TPB and environmental concern and accountability. All variables in second part were measured through five-point Likert Scale (completely disagree to completely agree). To test the content validity of the questionnaire, assistance was provided by experts in the Department of Agricultural Extension and Education, Bu-Ali Sina University, Hamedan, Iran. Before distribution of final questionnaires and to make sure of clarity and understandability of items and face validity of variables as well as formulating a better questionnaire, a pre-test was performed via distribution of 30 questionnaires among ranchers. After some minor changes, the final questionnaire was developed. In the research and to measure research model variables, 27 items were developed and modified based on previous studies (Han *et al.*, 2010; Alzubaidi *et al.*, 2020; Savari and Gharechae, 2020; Chan and Hon, 2020; Tan *et al.*, 2017; Paul *et al.*, 2016, Chen and Tung, 2014); some changes and modifications were made in line with the research subject. The following constructs were measured through a number of items

stated below: Intention for the conservation of rangelands with eight items; attitude towards rangelands conservation with eight items; subjective norms with four items; perceived behavioral control with seven items; and environmental concern with eight items. Cronbach's alpha coefficients of these scales are shown in Table 2. As observed, all of the scales are appropriately reliable.

Results

All respondents were male with the average age of 43.46 year; and they had an average work record of 25.66 years in ranching. According to the data, respondents had a minimum of 10 and maximum of 120 livestock in possession with the average number of 61.28. In average, the pasture area possessed by

respondents has been 13.19 ha, including 7 ha of drylands and 1.5 ha of irrigated lands. From the total number of respondents, 106 people (88.3%) had a diploma degree or less and 14 people (11.7%) had bachelor's degree or higher. According to the findings, about 31% of respondents have indicated that less than 50% of their income comes from ranching and 69% of them indicated that more than half of their income comes from ranching.

Table 1 shows the mean, standard deviation, and correlation coefficient of research variables. As observed, mean values of all research variables are higher than average; and there is a positive relationship between the independent variables and ranchers' intention to conserve rangelands and natural resources.

Table 1. Means, standard deviations (SD), correlations among research variables

Variables	Mean	Intention	Attitude	Subjective norms	Perceived behavioral control
1- Intention	3.99±0.68	1			
2- Attitude	4.39±0.69	0.79*	1		
3- Subjective norms	3.88±0.69	0.59*	0.47*	1	
4- Perceived behavioral control	3.23±0.76	0.58*	0.34*	0.44*	1
5- Environmental concern	4.31±0.57	0.65*	0.31*	0.31*	0.74*

* $p < .01$.

Structural Equation Modeling

In the research, the second generation of structural equation modeling (component-based) or partial least squares method has been used. Conventional models in structural equation modeling are formed of two parts: measurement or internal model and structural or external model. During data analysis by SmartPLS 3.2 software and to study measurement model; reliability, convergent validity, and discriminant validity are studied. As for the reliability, values of factor loadings, Cronbach's alpha, and composite reliability are taken into consideration. In analyzing the structural model as well, significance coefficients are considered in addition to R-squared (R^2) and predictive relevance (Q^2). Overall fit of the model also is measured using GoF criterion (Fornell and Larcker, 1981). In the research and after drawing the model and calculating values of factor loadings; these

values were higher than 0.5. Then, the values of Cronbach's alpha and composite reliability were measured. The results confirmed the reliability of variables because all Cronbach's alpha values and those of composite reliability were higher than the recommended value of 0.7. The convergent validity of variables was examined via average variance extracted (AVE). As shown in Table 2, the AVE coefficients for all of the variables were higher than 0.5 or close to that, indicating appropriate convergent validity of the measurement model. Finally, the discriminant validity of constructs was evaluated through new criterion of the Heterotrait-Monotrait ratio of correlations (HTMT) (Henseler *et al.*, 2016). As observed in Table 3, the HTMT value for each of construct was lower than 0.85, showing proper discriminant validity of the measurement model.

After assessing the measurement model, the structural model should be evaluated. Obtaining the R² value of the endogenous construct is considered to be the primary way to evaluate the explanatory power of the structural model. The R² values of the endogenous latent constructs were attained via the PLS algorithm procedure. As shown in Table 2, the values of R² as a criterion of predictive accuracy for the four endogenous latent variables of intention to conserve rangelands, attitude, subjective norms and perceived behavioral control are 0.79, 0.30, 0.10, and 0.54, respectively. The values of Q², as an indicator of the model's predictive relevance for the model's endogenous latent variables, were obtained conducting blindfolding procedures. The values were all found to

be positive and above zero (i.e. attitude: 0.15; subjective norms: 0.04; perceived behavioral control: 0.25 and intention to conserve rangelands: 0.39) confirming the model's predictive relevance for the four endogenous constructs. In SEM models, Q² values greater than zero for a reflective endogenous construct indicate the path model's predictive relevance for that construct (Hair et al., 2017). GoF criterion is used for overall fit of the model. The criterion value for the research model was 0.50 and with consideration of 0.01, 0.25, and 0.36 respectively as for weak, moderate and strong values of GoF criterion; the strong overall fit of the model can be suggested. In the next step, the relationship between constructs in structural model is measured.

Table 2. Cronbach's alpha, CR, AVE, R², Q² values

Variable	α	CR	AVE	R ²	Q ²
Environmental concern	0.95	0.96	0.76	-	-
Attitude	0.83	0.88	0.55	0.30	0.15
Subjective norms	0.75	0.82	0.49	0.10	0.04
Perceived behavioral control	0.77	0.84	0.52	0.54	0.25
Intentions	0.84	0.88	0.56	0.79	0.39

Note: α : Cronbach's alpha; AVE: average variance extracted; CR: composite reliability; Q²: predictive relevance; R²: coefficient of determination

Table 3. Heterotrait-Monotrait ratio of correlations (HTMT)

Variables	Intention	Attitude	Subjective norms	Perceived behavioral control
Attitude	0.84			
Subjective norms	0.71	0.58		
Perceived behavioral control	0.69	0.44	0.57	
Environmental concern	0.71	0.56	0.32	0.80

As shown in Table 4, there were positive relationships between attitude towards rangelands conservation ($\beta = 0.58, p < 0.01$), subjective norms ($\beta = 0.20, p < 0.01$), and perceived behavioral control ($\beta = 0.17, p < 0.05$) with ranchers' intention to conserve rangelands. Thus, H1(a), H1(b), and H1(c) were confirmed. Also, there were positive relationships between environmental concern and attitude towards conserving rangelands ($\beta = 0.55, p < 0.01$), subjective norm ($\beta = 0.31, p < 0.01$), and perceived behavioral control ($\beta = 0.73, p < 0.01$), confirming H2(a), H2(b), and H2(c). However, contrary to what was expected, the direct relationship between environmental concern and ranchers'

intention to conserve rangelands was not confirmed. The results showed that environmental concern had an indirect relationship with intention to conserve rangelands via its antecedents. In other words, attitude towards conserving rangelands, subjective norm, and perceived behavioral control had a mediating role between environmental concern and ranchers' intention to conserve rangelands. The total effects as well show that two important predictors of ranchers' intention to conserve rangelands were respectively environmental concern ($\beta=0.65$) and attitude towards conserving rangelands ($\beta=0.58$) (Table 4).

Table 4. Direct, indirect and total effects of the research model

Hypotheses	β	t value	Result
Direct effect			
Attitude \rightarrow Intention	0.58**	10.35	H1a: Supported
Subjective norms \rightarrow Intention	0.20**	4.27	H1b: Supported
Perceived behavioral control \rightarrow Intention	0.17*	2.69	H1c: Supported
Environmental concern \rightarrow Attitude	0.55**	7.58	H2a: Supported
Environmental concern \rightarrow Subjective norms	0.31**	4.29	H2b: Supported
Environmental concern \rightarrow Perceived behavioral control	0.73**	13.12	H2c: Supported
Environmental concern \rightarrow Intention	0.15	1.58	H2d: Not supported
Indirect effect			
Environmental concern \rightarrow Attitude \rightarrow Intention	0.14**	6.92	
Environmental concern \rightarrow Subjective norms \rightarrow Intention	0.06**	3.72	
Environmental concern \rightarrow Perceived behavioral control \rightarrow Intention	0.12*	2.52	
Total effect			
Environmental concern \rightarrow Intention	0.65**	9.89	

*: $P < 0.05$; **: $P < 0.01$

Discussion

Rangelands are among the most valuable and important natural resources, playing basic role in the ecosystem and supply of human requirements (such as food and energy) (Hasanpori *et al.*, 2020). Despite the importance, these natural resources are severely prone to destruction mostly caused by humans. Meanwhile, ranchers also destruct these resources upon transforming rangelands to agricultural and non-agricultural lands, immethodical grazing, removing bushes, and cutting down trees to be used as fuel, and putting fire into the rangelands. So, in the research and through the theory of planned behavior (TPB: Ajzen, 1991), the behavior of ranchers in Borujerd County, western Iran, regarding conserving rangelands has been studied. According to the results, the TPB provides an appropriate framework to explain intention of ranchers to conserve rangelands in a developing country. In the research, all of the three psychological variables of TPB, i.e. attitude towards conserving rangelands, subjective norms, and perceived behavioral control have positive and significant relationship with ranchers' intention to conserve rangelands and 79% of the variance in terms of ranchers' intention is explained by them. The results are consistent with those of previous studies in terms of environmental behaviors (Borges *et al.*, 2016; Savari and Gharechae, 2020). Meanwhile, three

cognitive variables of attitude towards conserving rangelands have had maximum effect on ranchers' intention. That is positive attitude of ranchers towards conserving rangelands and natural resources as well as their desirable evaluation of such action improves their intention to conserve rangelands. The result is in line with those of Berger *et al.* (2014) in Brazil and Martínez-García *et al.* (2013) in Mexico.

Subjective norms are the second effective variables, indicating an important role played by social pressure and what other people believe in terms of Iranian ranchers' intention. In this respect, it is suggested by Martínez-García *et al.* (2013) that farmers may give value to what other people believe in because they are looking for their confirmation and acceptance or they want to show their commitment towards common values in their culture. Again, it is suggested by Burton (2004) that people do not act independently of their socio-cultural background; instead, they always refer their behavior to an important reference group. Moreover, the results are indicative of the positive relationship between perceived behavioral control and ranchers' intention to conserve rangelands. In other words, positive perception of ranchers of their own capabilities in implementing conservation methods for the rangelands improves their intention. The results from this study can provide a useful insight for extension

agents and policymakers. Considering important role played by attitude and perceived behavioral control in the promotion of ranchers' intention to conserve rangelands, promoters and policy makers are recommended to formulate training programs to optimize such components. The relationship of ranchers and those using rangelands with the Department of Natural Resources as the administrator of training and extension, holding promotional training classes, using media and cyberspace can be highly effective in creating positive feelings in ranchers towards conserving rangelands and natural resources and improving their attitude as well. Participating ranchers in programs and actions taken regarding conservation of rangelands and natural resources can improve senses of self-efficiency and self-confidence in ranchers in terms of conserving rangelands and natural resources. Empowering ranchers and granting them with different incentives by the government such as participatory insurance for rangelands, taking action as for putting businesses in operation and providing ranchers' means of living relying on rangelands by granting low interest and interest-free loans to them can create clear positive feelings and attitudes in ranchers, leading to more effective conservation of rangelands and natural resources.

Considering effect of subjective norms, promoters can look for opportunities to increase social pressure on ranchers. For example, they not only can focus on the spread of information about the conservation of rangelands but also, they can focus on the spread of information among families and society. Increase of social pressure on ranchers to conserve rangelands is probable (Borges *et al.*, 2016). Confirming how rancher behaves by those around him or lack of such confirmation encourages rancher towards protective behavior. This is why their encouragement by acquaintances, family, experienced ranchers and employees in the Department of Natural Resources can push

them towards conserving rangelands and natural resources.

According to the obtained results as well, environmental concern has a positive effect on components of theory of planned behavior and indirectly affects ranchers' intention to conserve rangelands through attitude towards the conservation of rangelands, subjective norms, and perceived behavioral control. These findings as well are in line with those of previous studies in the field of environmental behaviors (Chen and Tung, 2014; Yaghoubi Frani *et al.*, 2019; Chan and Hon, 2020). The results support the basic assumption of the theory of planned behavior that effect of other individual and psychological variables such as environmental concern on behavioral intention is indirect; motivational factors such as attitude have mediating role in this respect (Fishbein and Ajzen, 2011). Considering the relationship between environmental concern and variables of theory of planned behavior; policy makers and extensionists are recommended to pay more attention to promote the concept of conserving the environment and natural resources so that the level of environmental concern in ranchers would be improved. For example, governmental institutes and media like radio and television can produce and broadcast environmental documentaries so that problems related to the environment and natural resources would be presented to the audience and importance of protecting these resources would be reminded to them. Through increase of environmental concern and awareness as well, they can help optimize their subjective norms, perceived behavioral control, and attitudes towards conserving natural resources, especially rangelands. Finally, they can increase the ranchers' intention to conserve rangelands.

Conclusion

The main objective of this study was to investigate farmers' intention to conserve rangelands based on an expanded version of the TPB, for which no data exist in the

literature. Environmental concern was positively related to the three psychological variables of TPB, i.e., attitude towards the conservation of rangelands, subjective norms, and perceived behavioral control. In turn, these psychological variables were positively related to ranchers' intention to conserve rangelands. In general, the findings of the present research greatly improve our comprehension of the socio-psychological factors affecting Iranian ranchers' intentions to conserve rangelands besides providing a reference framework for the design and implementation of various practical interventions by the relevant planners and policy-makers to promote the behavior of ranchers in respect of conserving rangelands through emphasizing these variables. The main contribution of the study to the literature and ranchers' community was about the role of environmental concern. The results of the study showed that environmental concern is the most important factor in shaping Iranian ranchers' intention to conserve rangelands and its antecedents. Therefore, the government and policy-makers should focus on increasing environmental concern of ranchers to promote their environmental practices.

Finally, the current study has some limitations which need further research. First, this research examined ranchers' intention to conserve rangelands instead of their actual behavior. It was shown by previous studies that models of behavioral intention such as theory of planned behavior are strong in different fields such as strong and efficient environmental behaviors (Ajzen, 2002); however, this has to be considered that real behavior is not always similar to behavioral intention of people (Belk, 1985). So, future researchers are recommended to study the actual behavior of ranchers in the conservation of rangelands. Second, since this study selected ranchers of the Angoshteh Watershed in Borujerd County as a sample, the findings should not be generalized to all ranchers in the entire county and province. Thus, future studies

should include more ranchers in different cities of the province. In addition, future studies can explore effects of other individual and psychological variables as well as the effects of training-promotional programs and courses on ranchers' intention and behavior in respect of conserving rangelands.

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چه عواملی بر قصد دامداران برای حفاظت از مراتع تاثیر دارد: نقش نگرانی زیست-محیطی (یک مطالعه موردی از حوزه آبخیز انگشته در شهرستان بروجرد، ایران)

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چکیده. نگرانی روزافزونی درباره تخریب بیش از حد مراتع به ویژه در کشورهای در حال توسعه از جمله ایران وجود دارد. این تخریب عمدتاً به علت چرای مفرط و دامداری بی‌رویه می‌باشد. به دلیل آن که رفتار و اقدامات دامداران نقش تعیین کننده‌ای در حفاظت مراتع دارد، پژوهش حاضر با هدف بررسی و شناسایی عوامل موثر بر قصد دامداران در حفاظت از مراتع انجام شد. مدل پژوهش مبتنی بر یک مدل توسعه یافته رفتار برنامه‌ریزی شده بود که با اضافه کردن نگرانی زیست محیطی ساخته شده بود. این پژوهش به روش پیمایشی و در سال ۱۳۹۹ انجام شد. داده‌های مطالعه با استفاده از پرسشنامه از ۱۲۰ دامدار در حوزه آبخیز انگشته شهرستان بروجرد گردآوری شدند. روایی پرسشنامه با نظر اساتید و متخصصان تایید شد و برای بررسی پایایی، ضریب آلفای کرونباخ بخش‌های مختلف پرسشنامه مورد اندازه‌گیری قرار گرفت. داده‌های پژوهش حاضر با استفاده از روش مدل‌سازی معادلات ساختاری و با رویکرد حداقل مربعات جزئی و نرم‌افزار SmartPLS3.2 تجزیه و تحلیل شدند. نتایج نشان داد که مدل توسعه یافته ۷۹٪ واریانس قصد قصد دامداران در حفاظت از مراتع را تبیین می‌کند. بر اساس نتایج به دست آمده، هر سه متغیر روانشناختی نظریه رفتار برنامه‌ریزی شده یعنی (الف) نگرش نسبت به حفاظت از مراتع ($\beta=0/58, p=0/01$)، (ب) هنجارهای ذهنی ($\beta=0/20, p=0/01$) و (ج) کنترل رفتاری درک شده ($\beta=0/17, p=0/05$) با قصد دامداران برای حفاظت از مراتع رابطه مثبت و معنی‌داری دارند. به علاوه، نگرانی زیست محیطی رابطه مثبت و معنی‌داری با نگرش نسبت به حفاظت مراتع ($\beta=0/55, p=0/01$)، هنجارهای ذهنی ($\beta=0/31, p=0/01$) و کنترل رفتاری درک شده ($\beta=0/73, p=0/01$) داشت. نتایج همچنین نشان داد که نگرانی زیست محیطی به صورت غیرمستقیم و از طریق سه متغیر روانشناختی با قصد دامداران برای حفاظت از مراتع رابطه مثبتی دارد. بنابراین، سیاست‌گذاران، کارشناسان و مروجان منابع طبیعی با تاکید و اهمیت دادن به این متغیرها می‌توانند رفتار دامداران در خصوص حفاظت از مراتع را بهبود دهند.

کلمات کلیدی: حفاظت از مراتع، نگرانی زیست محیطی، نظریه رفتار برنامه‌ریزی شده، دامداران، بروجرد