

# GOVERNMENT INTERVENTION STRATEGY IN AGRICULTURE PRICE POLICY: A CASE OF MINIMUM SUPPORT PRICE IN NEPAL

B.K. Bhattarai<sup>1</sup> and A. GC<sup>2</sup>

## ABSTRACT

*Price policies are used as important tools to enhance production, minimize the farmers' risks and stabilize the consumer price. Different price policies are being implemented in many countries since long. This paper tries to analyze the different price policies - especial focused with minimum support price, implemented by Nepal and comparative assessment of their successes. The different literatures have been reviewed and policies of Nepalese government at different periods have been analyzed and compared with the relative performances to draw the conclusion. Implementation of Minimum support price and deficit payment schemes for different crops have been recommended, while establishment of separate commission for price and cost of agriculture commodities may ease the implementation of price policy.*

**Keywords:** Minimum support price, Deficit payments, Commission, Schemes, cost

## INTRODUCTION

Many countries in the world have adopted minimum support price and other schemes for regulating price fluctuations in agriculture commodities (Lyu & Li, 2019; Guda, Rajapakshe, Dawande, & Janakiraman, 2019; Marcus & Modest, 1986; Rasmussen & Baker, 1979). Uncertainty in price has affected large number of farmers throughout the world and especially small farmers are more vulnerable to such fluctuations. Such price policy often causes significant income transfer (Lianos & Rizopoulos, 1988). Once the engine for all economic growth, now agriculture in most of the world remains a must protect sector. After industrial revolution in many countries, the share of agriculture sector has been decreasing constantly. Both price and income is being inelastic for agriculture produce (Brodeur & Clerson), 2015), the level of production of agriculture commodities has to be at controlled targeting the market demand. As large section of global population came out of agriculture sector, advanced technologies and high inputs were required to meet increased demand amid population growth and quality requirements.

Unlike many developing countries, Nepal's industrialization progress remained sluggish and major chunk of population is engaging in the agriculture sector. However, the liberalization after 1990 opened new avenues for foreign employment which resulted in increased absentee population from 0.6 million to 1.9 million during 20 years after liberalization (DoFE, 2014). It is estimated

---

1 Senior Agriculture Economist, Ministry of Agriculture and Livestock Development

2 Agriculture Extension Officer, Ministry of Agriculture and Livestock Development

that such population to have surpassed 3.0 million in 2019. More than 90% of such absentee population is from rural areas; indicating much of the agriculture labor force is being dragged out of country. The foremost reason for such increased labor migration has been attributed to low profitability of agriculture sector because of lower productivity and low farm gate prices. The need for government intervention in price policy of agriculture commodities was realized long ago and some of the mechanisms are in place in Nepal too.

The debates on government interventions on agriculture prices have long been ongoing. The free market school advocates for border price to reflect their opportunity cost; while structuralist school argues that the border price paradigm for domestic price determination is misguided because of the different schemes and subsidies provided in huge amounts to decrease the cost of production by the developed world (Timmer, 1989). As a consequence, many donors and development partners in the third world including Nepal advocated for the free market approach; while many countries adopted the government intervention policies to protect their domestic production. India has been implementing Minimum Support price for major commodities since 1968; likewise, United States of America also provides price support for major commodities especially for exportable commodities which resulted increased in value of crops (Marcus & Modest, 1986). Albeit debates for using appropriate price policies, minimum support price and price supports are the basic tools used by most of the countries to stabilize price and diminish the risk of farmers.

India used the price intervention policy to increase the export of rice more prudently. India used to be the net importer of rice before 1970s. However, the MSP triggered during the same period and continued inspite of bumper production during green revolution, which encouraged the farmers to keep the production up. As price assured their minimum income, farmers were encouraged to use new technologies like high yielding varieties and high dose of fertilizer for increasing productivity and production (Kumbhar, 2011). As a result, India became one of the major rice exporters in the world and exports of Basmati rice accounting more than 3 billion USD in 2019.



Figure 1: International Trade of Rice in India

Source: Ricepedia.org/India, 2020

Nepal once exporter of rice during 1970s, started importing rice after 1980s where the export was booming in India.

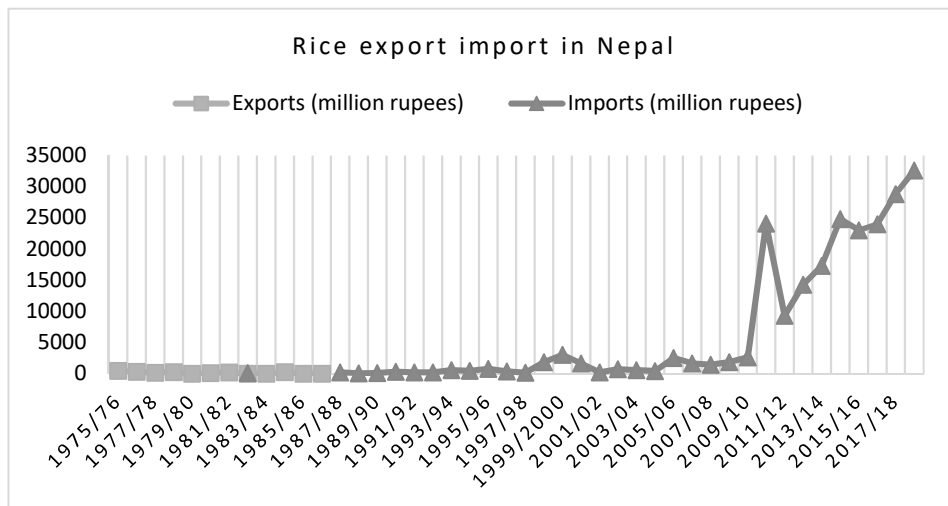


Figure 2: International Trade of Rice in Nepal

Source: Trade and Export Promotion Center, Nepal, 2019

The general objective of the study is to carry out a review about the price support mechanism around the world and to assess the suitability in case of Nepal. Furthermore, the study aimed to come up with best possible alternative for the price support in agriculture sector.

## METHODOLOGY

Several approaches have been suggested for the literature reviews which includes systematic, semi-systematic and integrative (Snyder, 2019). Semi-systematic review approach has been adopted for the study. This model is found instrumental for theoretical perspective (Ward, House, & Hamer, 2017). A comprehensive review of published literature has been carried out for the study. The published peer-reviewed papers are the foundation of the study. However, government report in this regard is also considered to get insight in the process and the intention of the intervention. Moreover, several key informant surveys were conducted to validate the findings. Further, following guideline was adopted to assess the quality of a literature review (Snyder, 2019).

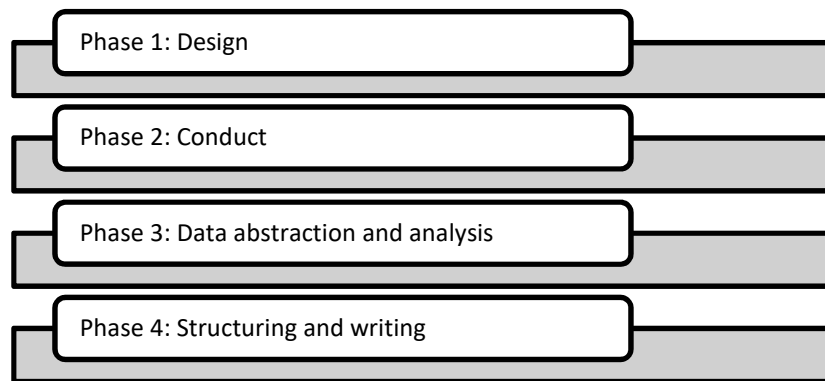


Figure 1: Guideline to assess the quality of literature review

## RESULTS AND DISCUSSION

### DIFFERENCES IN PRICE POLICIES BETWEEN INDIA AND NEPAL

In India major thrust of price policy implemented from 1965 was i) need to provide incentives to producers for adopting improved technology for maximizing production, ii) ensure the rational utilization of land and other resources, iii) the likely effect of the price policy on the rest of the economy, particularly on cost of living, wage levels and industrial cost structures (Bhalla, Randhawa, & Tyagi, 1989). As India faced lot of shortages of food and production inputs; the major emphasis of the price policy was to increase the production. Whereas in Nepal, from 1957 to 1981 the major objective of the price policy was to stabilize the consumer price. It did not really account on the production regime. As significant quantity of rice was being exported; the government tried to regulate consumer prices thereby disincentivizing the producers. It was only since 1981; the support prices were meant for

increasing the production. Moreover, mechanism for such support price were established differently for different crops such as rice and wheat; tobacco, jute and later on sugarcane.

In India, the price policy was successful for most of the cereals. The market price for most of the period operated in around the minimum support price. This was also possible due to strong public distribution system throughout the country. The recent study by NITI Ayog suggests that most of the farmers sell their produce above the MSP; only 4% of total rice production in the country was purchased by the government agency to regulate the farm price (NITI Ayog, 2018). In case of Nepal, although declared; the MSP were never implemented for cereals. The market price for rice and wheat were far below the MSP in the main season in 2018 and 2019; which was even worse during 1976 to 1986. Lack of clear direction, weak infrastructures- especially storage and public distribution system, and poor coordination was responsible for failure of price policy in Nepal; which is even much difficult to handle due to open border with India; where major food basket of the country in the south adjoins with. One easy way to adopt price policy in Nepal is to maintain the MSP as par with Indian border price; however, this depends on the other support and subsidies schemes of the Indian government to their farmers. But it seems there is no choice than to fully implement the price support schemes to encourage the increased production in context of ever-increasing trade deficit in food grains.

#### DEFICIT PAYMENTS AGAINST MINIMUM SUPPORT PRICE: A POSSIBILITY IN NEPAL

Deficit payment schemes were brought to implement the hybrid model of government price policy; and are popular in United States for export commodities. In this scheme, the support price is directly paid to the farmers if the market price goes down from floor price. This process does not intervene the market on the one side but also protects farmers on the others side. In this aspect, it seems most plausible option to implement government price policy; however factually it is no different to direct payment; which in turn increases the government spending to insurmountable amount later on and cannot be affordable to the country like Nepal. Deficit payments can be applied to the limited high value commodities with higher scope for export markets. Similar support price is being implemented for Sugarcane in Nepal; where government direct transfer to farmers is more than 1 billion rupees in 2019 (DoA, 2019). The deficit payment system for cereal crops is not feasible economically in Nepal; while that for sugarcane also should be reviewed periodically. Farmers are complaining of difficulty in obtaining the price support due to lengthy bureaucratic process and could be simplified if the payments be made from local government.

## INSTITUTIONAL STRUCTURES TO IMPLEMENT PRICE POLICY IN NEPAL

One of the main reasons for failure of price policy in Nepal is the establishment of many institutions in the process. There are at least three ministries involved in price determination and provision of cabinet to decide the minimum support price. It makes the price declaration a big hurdle due to ministry's own bureaucratic procedures and lack of coordination amongst ministries. Generally, MSP should be declared before the cropping season but interestingly in Nepal, it is declared after the harvest with exception in some years. Ministry of Agriculture and Livestock Development should be made solely responsible in price determination and cabinet to decide the price. Instead, a separate commission for price declaration can be established like Indian Commission for Agricultural costs and prices (CACP). The role of Ministry of commerce and supply should be limited in regulating the consumer prices. Likewise, different institutions are made responsible for implementing price support. Food Management and Trading Company limited (FMTCL); the government owned company is responsible for food supply in the rural areas. In doing so, it purchases the grains in the main season and supplies to remote areas. The major objective of the establishment of then Food Corporation of Nepal was to implement price support schemes of the government in food grains. However, it never operated in the way of price support, rather than benefit making by purchasing in low price and selling in prevailing market price. The clear guidance from the responsible authorities and lack of coordination between the agencies involved in price policy derailed the implementation. Likewise, Dairy Development Corporation is operating as market price regulator by purchasing the milk from farmers in the fixed price. This mechanism is somehow successful in stabilizing milk price both from producers and market perspectives. The increased commercialization of milk production can be credited to DDC operations where price is guaranteed for per unit of milk produced. The DDC price has served as minimum price of per unit of milk for other dairy industries. Farmers are benefiting by supplying milk to private dairy industries in lean season with higher prices while supplying to DDC in flush season in minimum prices. Fixing different prices for different season can solve the moral hazards in due process.

Tea and coffee Development Board is responsible for implementing appropriate price policy for tea and coffee. Likewise, Cotton Development Committee serves as implementation of cotton price policy. Tobacco price committee, Jute price committee, Sugarcane price committee were also established to determine the minimum support price for respective commodities.

## POSSIBLE MODELS FOR IMPLEMENTING PRICE POLICY IN NEPAL

Price policy were implemented by many countries to solve the farm related problems especially after 70s, where non-agriculture sector became more lucrative and risk of falling production throughout the world became prominent (Mollett, 1988; Rao, 1992). Further, price policy also aims to maintain a buffer stock against potential shocks, and to maintain public distribution system at desired level of price focused to the vulnerable section of the country (Vyas, 2001). As new technologies have been developed to increase the production and high input use ensuring the better production; the question in the developed world has raised whether still farm related problems exist and need for government intervention still relevant (Brodeur & Clerson, 2015; Andonov, 2012). The case of Nepal is quite different, as small economy cannot support farmers directly in the form of subsidies and incentives. Although some efforts were made to decrease the cost of farmers by chemical fertilizer subsidies and other input subsidies in negligible amount. More importantly the price policy in Nepal could not be implemented in the proper way to raise the farmers' income and the consequence is a large section of population are forced for migration due to lack of domestic job opportunities including several other factors like conflict and natural disasters. The neighboring countries India; implementing the price policy since 1968 successfully with exception to certain commodities (Krishnaji, 1990; OECD/ICRIER, 2018) and China implementing controlled price policy throughout the country (Yang & Li, 2008), Nepal has no option but to implement appropriate policy successfully.

The nature of commodities defines the type of price supports needed, such as MSP can be implemented in cereal crops while deficit payments can be implemented in certain industrial crops. Likewise, price fixation model can be continued in milk like commodities. Similarly, export subsidy could be an option for some commodities, but WTO regime does not allow it. The possible models for different commodities are discussed hereunder,

### *a. Cereal crops*

The non-perishable and high storability nature of cereal crops allows minimum support price can be the better way for price support. It requires caution to fix minimum support price as the market price varies significantly in season. To work for farmers welfare; the MSP should be fixed according to season like India fixes for Rabi and Kharif crops differently. Likewise, Australian Wheat Board also guarantees minimum support price scheme not only for consumer and producer net surplus but for more complete welfare (Fraser, 1988). The FMTCL poses the capacity to purchase the cereal crops and has mechanism of milling and supplying to rural areas. It requires additional infrastructures and

human resources to operate the MSP throughout the country and the company should be equipped with such requirements. Additionally, the scope of company should be broadened and also mandated to seek opportunities for exporting the additional purchase if met the domestic requirements. The government should regulate the dumping of cheap products from neighboring countries. Recently enacted Safeguard, Antidumping and Countervailing Act 2076 will play a vital role in this regard (GoN, 2019). The MSP for rice in India was higher in 2019 than in Nepal; sale of Indian rice from farmers in border side is automatically checked by the price difference; and only way of distorting the market is by dumping of buffer stocks; which need to be cautiously regulated.

One study suggested that after removal of price support policy in Malaysia, by 2020, domestic rice production was estimated to be declined by 13%, net rice import was anticipated to be increased by 23% and the paddy producer price was expected to be decreased by 20% (Suleiman, Abdullah, Shamsudin, & Mohamed, 2014).

b. *Pulses and oilseeds*

The production of pulses and oilseed crops is at decreasing trend in Nepal. Government should implement price policy immediately for lentil and mustard to stop the further slump of production. In this aspect, MSP can be implemented in both commodities. Lentil was the one of the most promising export commodities until few years back; however, its production and export both have faced repercussion. The FMTCL can be appropriate institution to implement the support prices; with buy back provisions.

c. *Sugarcane*

Existing deficit payment system may be modified for easy transfer of support prices to the farmers. The local government can act as appropriate institution to implement the support prices. The federal government may determine the mill and support prices and manage necessary funds for deficit payments, while local government should become responsible for cash transfer to the farmers. It will increase the ownership and credibility of the program. In long run, such schemes should be revisited and contract farming with floor price can serve as good alternatives.

d. *Tea and Coffee*

Tea and coffee are the two export promising commodities of Nepal. Nepalese orthodox tea is very popular in the international markets, while Nepalese coffee is also gaining momentum in export market. The price policy of these commodities should be harmonized with



international prices. National Tea and coffee Development Board (NTCDB) is working to implement the pricing policy however is not effective so far. Long demanded tea auction center was not materialized till the date which may bring fair price in the tea sector. Likewise, instead of continuous price hike in the coffee sector inconsistent with the international price, support to increasing productivity of coffee could stabilize farmers' income. The government may design price policy with the view of protecting farmers and also maintaining the international market price.

e. *Milk*

Dairy Development Corporation is implementing the government policies in dairy products. The price fixation mechanism is established; and DDC purchases the milk in the fixed price. As the share of DDC is high in milk market; the DDC price serves as base price for other private dairy industries too. This mechanism is working well till date; however, as the share of private industries increases in the milk market, this mechanism could be revised appropriately. Private industries may play further by purchasing the milk in higher prices in lean season while being reluctant to purchase in flush season; thereby increasing pressure on DDC functioning. DDC may use contract purchase for the whole year in definite price set by the government.

f. *Vegetables and potatoes*

Price policy for vegetables is the most difficult one to implement. Due to perishable in nature; the MSP at national level cannot be implemented however, the buy back guarantee could be emphasized. The buyback mechanism for vegetables could be different than other cereals. The provincial government may act as deciding entity for minimum price fixation in their territories; most possibly Agriculture Knowledge Center (AKC) under provincial ministry might be an appropriate institution to recommend the price. As production cost and season differs significantly amongst the province; the floor price can be fixed by respective provincial government. Such pricing policy of provincial government should be implemented by the local government. The federal government should be responsible for managing appropriate funds necessary to implement the policies and make available to respective provinces and local governments. The local government may utilize the cooperatives as service providers to purchase and sell the vegetables from farmers if they cannot sell in market price. Thus, if support price is more than prevailing market price, then only cooperatives will come into market to support the farmers. However, the price compensation will be provided by the local governments to

the cooperatives for all transactions. This hybrid model will not distort the market while protecting the farmers' welfare; however, government may need to incur additional investments each year.

## **CONCLUSION AND RECOMMENDATION**

The objectives of the price policy should ensure increased production and profitability of the producers along with providing choices to farmers whether to produce while also taking account of the consumer price. Nepal has ample opportunities to learn from the Indian experiences and implement in the best possible way. It demands the strong institutional mechanism to implement the price support. The good coordination amongst the ministries responsible for price determination and implementation of the schemes are most essential. Involvement of many authorities in decision making creates confusion and time taking, which ultimately affects the efficacy. The recommendations for effective implementation of price policy in Nepal are as following,

- Minimum support price should be implemented for major cereal crops like rice, wheat and maize; pulse crops- lentils and oilseeds- mustard. The Food Management and Trading Company Limited should be made responsible for implementing the support price. The infrastructures like storage house, drying floors, mills and selling outlets should be strengthened and further capacitated.
- Ministry of Agriculture and Livestock Development should be responsible ministry for determining the MSP and sending proposals to cabinet for approval. A separate commission for cost and price determination of agriculture commodities can be formed to recommend to the government.
- It is recommended to bring FMTCL under the direct management of MoALD instead of Ministry of Industry commerce and supply.
- It is recommended to continue the deficit payment mechanism for sugarcane for first three years. The local government should be made responsible for implementing the price support, while federal ministry managing the required funds. However, the schemes should be revisited after third year; possibly scrapped and replaced by other support schemes.
- The Dairy Development Corporation should continue implementing the floor price schemes, which serves as minimum price for other private dairy industries too. Contract buying of milk in the fixed price for throughout the year by the DDC is further recommended to regulate milk prices.
- Buyback arrangements are important for perishable commodities like vegetables. Production cost variation because of differences in location

and season implies that such price policy should be implemented at sub-national levels. The provincial government should be responsible for fixing support price within the respective provinces' domain, while local government should implement the scheme.

## REFERENCE

- Andonov, S. 2012. Arguments for and against government intervention in agriculture. *Agriculture Economics and Management*.
- Bhalla, G., Randhawa, N., & Tyagi, D. 1989. Implementation and administration of agricultural price policy in Asia. Rome: Food and Agriculture Organization of the United Nations.
- Brodeur, C., & Clerson, F. 2015. Is government intervention in agriculture still relevant in the 21st century? *Union Des Producteurs Agricoles*.
- DoA. 2019. The program and budget of Department of Agriculture, Nepal. Lalitpur: Department of Agriculture, Ministry of Agriculture and Livestock Development, Government of Nepal.
- DoFE. 2014. Labor migration for employment: A status report for Nepal 2013/14. Kathmandu: Department of Foreign Employment, Government of Nepal.
- Fraser, R. 1988. A METHOD FOR EVALUATING SUPPLY RESPONSE TO PRICE UNDERWRITING. *Australian Journal of Agriculture Economics*, 32(1), 22-36. doi:<https://doi.org/10.1111/j.1467-8489.1988.tb00473.x>
- GoN. 2019. Safeguard, Antidumping and Countervailing Act 2076. Retrieved from Nepal Law Commission:
- Guda, H., Rajapakshe, T., Dawande, M., & Janakiraman, G. 2019. An Economic Analysis of Agricultural Support Prices in Developing Economies. SSRN. doi:<https://ssrn.com/abstract=3103334> or <http://dx.doi.org/10.2139/ssrn.3>
- Krishnaji, N. 1990. Agricultural Price Policy: A survey with reference to Indian foodgrain economy. *Economic and Political Weekly*, 25(26): A56-A63.
- Kumbhar, V. M. 2011. Impact of MSP on Area Under Cultivation and Level of Production: A Study of Selected Crops in India. SSRN. doi: <http://dx.doi.org/10.2139/ssrn.1748342>
- Lianos, T., & Rizopoulos, G. 1988. Estimation of social welfare weights in agricultural policy: The case of Green cotton. *Journal of Agriculture Economics*, 39(1): 61-68. doi:<https://doi.org/10.1111/j.1477-9552.1988.tb00562.x>
- Lyu, J., & Li, X. 2019. Effectiveness and Sustainability of Grain Price Support Policies in China. *Sustainability*, 11(19). doi:<https://doi.org/10.3390/su11092478>

- Marcus, A. J., & Modest, D. M. 1986. The Valuation of a Random Number of Put Options: An Application to Agricultural Price Supports. *Journal of Financial and Quantitative Analysis*, 21(1): 73-86. doi:<http://doi.org/10.2307/2330992>
- Mollett, J. 1988. The impact of agricultural price policy in developing. *Intereconomics*, 23: 19-24. doi:<https://doi.org/10.1007/BF02929963>
- NITI Ayog. 2018. Demand and Supply projections towards 2033 Crops, Livestock, Fisheries and Agricultural Inputs. New Delhi: NITI Ayog, Government of India.
- OECD/ICRIER. 2018. Agricultural Policy in India, OECD Food and Agriculture Review. Paris: OECD Publishing. doi:<https://doi.org/10.1787/24114278>
- Rao, V. 1992. Fixing Agricultural Prices: Issues and Experiences. *Economic and Political Weekly*, 27(13): 639-645. Retrieved from [www.jstor.org/stable/4397733](http://www.jstor.org/stable/4397733)
- Rasmussen, W., & Baker, G. 1979. Price-Support and Adjustment Programs From 1933 Through 1978: A Short History. Washington D.C.: United States Department of Agriculture.
- Snyder, H. 2019. Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104: 333-339. doi:<https://doi.org/10.1016/j.jbusres.2019.07.039>
- Suleiman, U., Abdullah, A., Shamsudin, M., & Mohamed, Z. 2014. Effects of paddy price support withdrawal on Malaysian Rice Sector: Time series econometric approach. *Asian Journal of Agriculture and Rural Development*, 4(7): 401-413.
- Timmer, C. 1989. Food price policy: Rationale of government intervention . Butterworth and Co-Publishers.
- Vyas, V. 2001. Agriculture: Second Round of Economic Reforms. *Economic and Political Weekly*, 36(10): 829-831+833-836. Retrieved from <https://www.jstor.org/stable/4410372>
- Ward, V., House, A., & Hamer, S. 2017. Developing a Framework for Transferring Knowledge Into Action: A Thematic Analysis of the Literature. *Journal of Health Services Research and Policy*, 14: 156-164. doi:[10.1258/jhsrp.2009.008120](https://doi.org/10.1258/jhsrp.2009.008120)
- Yang, D., & Li, Y. 2008. Agricultural price reforms in China: Experience from the past three decades. *Agroalimentaria*, 14(27). Retrieved from [http://ve.scielo.org/scielo.php?script=sci\\_arttext&pid=S1316-03542008000200002](http://ve.scielo.org/scielo.php?script=sci_arttext&pid=S1316-03542008000200002)