

Community Gardens as a Form of Urban Household Food and Income Supplements in African Cities:

Experiences in Hammanskraal, Pretoria

Sibusiso Nkosi,¹ Trynos Gumbo,² Florian Kroll³ and Michael Rudolph⁴

Food shortages, unaffordability and inaccessibility in urban centres of the world at large and in the African continent in particular have become issues of concern since the turn of the twenty-first century. Admittedly, food insecurity is no longer confined to and experienced only in rural areas. Instead, it has become a common occurrence in cities, where millions are unable to either purchase or access enough food for themselves and their families due to a myriad of reasons. In an effort to address this ill, people in a number of residential areas have started cultivating community food gardens. The gardens are viewed as a viable and feasible vehicle for increasing food access and availability, as well as reducing the cost of food. To better understand and appreciate the role of community food gardens in the food availability and income generation, a case study of food gardens was conducted in the Hammanskraal township in Pretoria, the administrative capital of the Republic of South Africa. The study highlighted how community food gardeners in Hammanskraal are reaping meaningful benefits in terms of food supplementation and income that is generated from the sale of their produce. This policy brief proffers that a lot still needs to be done to support and encourage communities to expand and sustainably maintain their food garden projects. Long-term success can only be achieved if all relevant and critical stakeholders, including central and local government authorities, non-governmental organisations, local communities and individuals, make a concerted effort to support organised urban farming. There is a need also to build the capacity of urban poor communities, through the provision of funds, equipment, skills, and suitable and adequate strategically located land for this purpose.

1. Sibusiso Nkosi is a Research Intern in the Sustainable Development Programme of the Africa Institute of South Africa (AISA) within the Human Sciences Research Council (HSRC).

2. Trynos Gumbo is a Senior Lecturer, Department of Town and Regional Planning, University of Johannesburg, South Africa.

3. Florian Kroll is a Programme Head at the Wits Siyakhana Initiative (WSI).

4. Michael Rudolph is a Director and Founder of the Wits Siyakhana Initiative (WSI).

Introduction and Background

A shortage of food in terms of quantity and quality is no longer synonymous with rural areas. It has become common in urban centres globally as well, with millions being unable to either purchase or access enough food for themselves and their families. This inability to purchase or access enough food is due to a myriad of reasons.

The food shortage problem has become more pronounced in cities of developing countries, and the eradication of hunger has been receiving much wider attention since the adoption of the Millennium Development Goals (MDGs) in 2000. Ever since, the United Nations (UN) has been encouraging countries to promote food security by improving the availability of food in the right quantities and qualities to all citizens by the year 2015. Yet the majority of people in the Republic of South Africa (RSA) are still far from being food secured, particularly in the rural areas and urban townships. One can only be considered to be food secured if they have both physical and economic access to enough safe and nutritious food at all times to meet their dietary needs while leading an active and healthy life.¹

In the RSA, studies on household food insecurity, such as the one by Battersby,² have revealed that about a million households struggle to access adequate food, meaning that more than 12 million people are facing food insecurity and starvation. However, despite the high level of challenges to accessing adequate food, the country has recorded tremendous progress in reducing the percentage of citizens facing starvation: A 17 per cent reduction was recorded in the percentage of the population facing food shortages, from 29.9 per cent in 2002 to 12.9 per cent in 2011, in the quest to achieve the first MDG³ (to eradicate extreme poverty and hunger). One of the strategies that have been used to improve the availability of and access to food in the country's urban centres, particularly in the townships, is the concept of community food gardens. Community food gardens can best be described as gardening arrangements by a group of community members who come together to plant and produce their own fruits and vegetables for either consumption or sale, and sometimes a combination of both. These gardens come in various shapes and sizes. Some may be based on shared tasks, whilst others take the form of individuals sharing one area but each cultivating a different plot.⁴

It has been demonstrated that community food gardens can result in a massive transformation of poor communities.⁵ These gardens play a variety

of roles that include the provision of nutritious food and decreasing the dependency on food aid and emergency relief food parcels from central and local government authorities and NGOs.⁶ When properly initiated and maintained, community food gardens assist in substantially subsidising household food supplies. This is realised through the sharing of fresh foods with family and close friends.⁷ This is mostly applicable in the African context, where urban agriculture has been recognised as a means to increase the scale of food available in households and the "nutritional status" of household members.⁸ Besides the promotion of food access, community food gardens also have the potential to increase the diversity of food and improve households' disposable income.⁹ In addition, community food gardens are used by government authorities to engage citizens in meaningful economic activities that keep communities, particularly the youth, away from criminal activities.¹⁰ In the case of the RSA, the motivation to expand and sustain community food garden projects extends inter alia to the need to reduce the great dependence on commercially prepared and processed foods that in the majority of cases are not nutritious.

Relevant stakeholders, which include government authorities at all levels,¹¹ non-governmental organisations (NGOs), local communities, civil society and individuals, have been taking the initiative in starting community food gardens as a solution to escaping hunger and improving the food situation in townships. Community food gardens have become a common sight in townships and are seen as a viable and feasible vehicle for increasing food access and availability and reducing the cost of food.¹²

One township where such community food garden projects have been initiated and adopted is Hammanskraal in Pretoria. Hammanskraal is a growing township that faces challenges of high unemployment and poverty levels.¹³ To obtain a better understanding and appreciation of the contribution that community food gardens make towards food availability and income generation in this township, research in the form of a case study of community gardens in Hammanskraal was conducted under the leadership of the Wits Siyakhana Initiative.¹⁴ The case study sought to gather information on gardening activities by means of interviewing community members, carrying out observations and administering questionnaires to members of the community engaged in food garden projects. This policy brief summarises the findings of the study, starting with a review of the relevant literature and

thereafter focusing on the variety of vegetables and fruits being grown in the township, their contribution to food provision and supply, and their role in generating household income.

Experiences of Community Food Gardening in Hammanskraal

Community food gardening projects were initiated in Hammanskraal mainly to promote the culture of preparing and eating food at home. The study revealed that the community grows a variety of vegetables and fruits. The variety and production levels as a percentage of total production are shown in Figure 1. Vegetables are more commonly grown in the community food gardens than fruits. Figure 1 shows that 20 per cent of the participants had planted tomatoes, followed by 15 per cent each of cabbages, spinach and onions.

Vegetables within the group of mealies (corn), beans and pumpkins are not commonly found within these surveyed community food gardens, as the pie chart shows, since all of them reflect the same contribution of 5 per cent. The pie chart further reveals that tomatoes contribute 20 per cent, which is partly explained by their use in preparing relishes from various vegetable types such as cabbage and spinach. The other reason for the prevalence of tomatoes within the surveyed community gardens is that they can be harvested in both summer and winter in frost-free areas.¹⁵ According to Nell et al.,¹⁶ vegetables such as spinach, cabbage, potatoes, tomatoes, onions, carrots and beetroot are very common in food gardens across townships in South Africa. These vegetables are considered to be important in the daily diet consumption of people within townships; equally important is the preparation process.

However, it was discovered that most community food gardeners were not able to provide vegetables on a continuous basis. There are times when their gardens have no vegetables at all. What has been identified as a common cause of empty vegetable gardens are pests that destroy their plants and a general lack of preparedness in this regard, as they sometimes have to go without the required pesticides. This lack of a consistent supply of vegetables is cause for concern, given the low levels of income of the gardeners and the amount it cost for purchasing food, particularly nutritious food that provides a balanced diet consisting of adequate vegetables and fruits. The study also investigated the impact

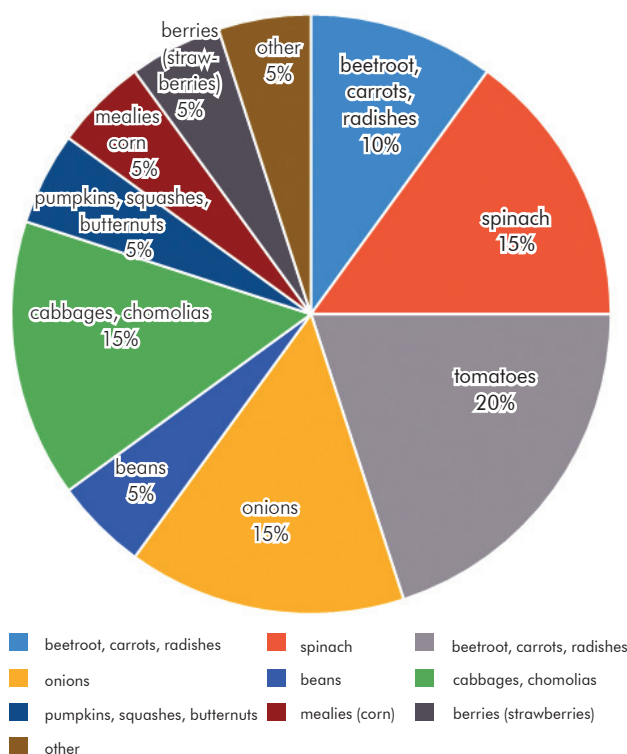


Figure 1 Vegetable and Fruit Types

of community food gardens, and in particular the benefits derived from the vegetables that are harvested from the gardens. The results are presented and discussed below.

Contribution to Food Supplies

It was established that the need to provide food from local sources at reduced costs has necessitated the establishment and operation of these community food gardens. All the participants indicated that they had ventured into food gardening to improve food access and diversify the food intake within their households. These households' efforts to supplement their food supplies and replace their purchased food intakes with home-grown vegetables and fruits are timely and essential, given the skyrocketing food prices in most urban centres in South Africa.¹⁷ It was also revealed that during the appropriate season for gardening, community food gardeners are able to harvest fresh vegetables that can be consumed or used to supplement their relish at least three times in a week.

On being asked about the food they had consumed the previous day and night, participants in the research and the community food gardens revealed that grains were the most

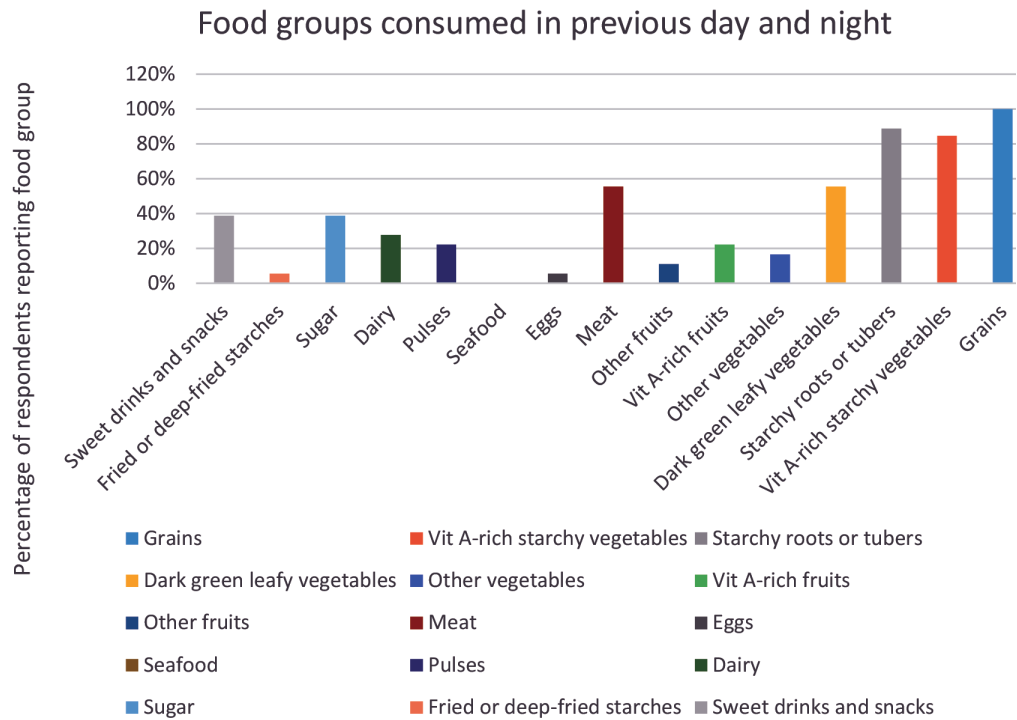


Figure 2 Food Groups Consumed During the Previous Day and Night

commonly consumed food, followed by starchy roots and tubers (Figure 2). It is interesting to note that members of the community food gardening projects are increasingly depending on their locally produced vegetables, as indicated in the diagram.

One of the gardeners remarked,

...the garden plays a major role within my household, because now we no longer have to worry about the purchase of meat. Whenever there is nothing to supplement pap [a local staple food], we are able to go to the garden and get a few vegetables to cook for that day. It is much better than going to bed hungry.

This demonstrates in a practical way the value of the community food gardens in helping households participate in projects that enable them to supplement their available food, thereby improving their food security.

Contribution to Incomes

As was alluded to earlier, the primary objective of establishing and operating community food gardens in townships is to supplement food supplies and to reduce the cost of household food supplies. However, the study revealed that the

gardeners sometimes produce surplus produce that is sold to generate income that is used, in turn, to buy other basic foodstuffs. As regards the selling behaviours of the gardeners, in the study revealed that participants in the community food gardens have different preferences and approaches. Figure 3 depicts the selling behaviours of gardeners who earn an income from the produce cultivated in the community gardens. As can be seen on the graphical representation of selling behaviours, 50 per cent of the community gardeners prefer to sell most of their garden produce. To such members, income generation seems to be the most important factor behind their participation in the food garden projects.

However, to some members of the community garden projects, consumption is the main objective of their participation in the projects, as has been highlighted before. 42 per cent of gardeners consume all their produce, thereby substantially supplementing the food they purchase from shops with their locally produced food – a positive development in the quest to secure the country's food situation. Only 8 per cent of the studied community food gardening participants sell the surplus that remains after first making provision for their own household food needs by holding back most of their produce.

The study therefore revealed that the income from the gardens serves to improve community

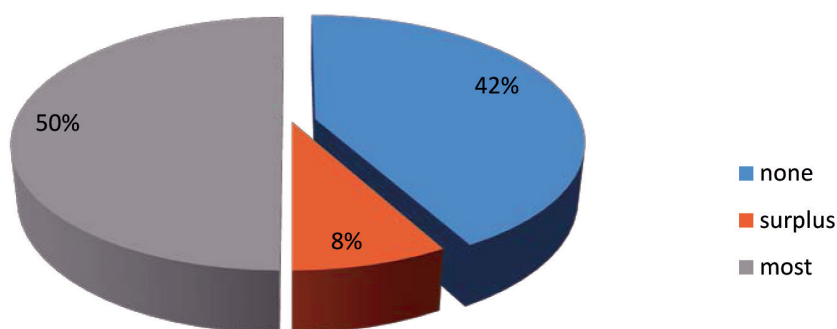


Figure 3 Garden Produce Selling Behaviours

livelihoods. One of the gardeners stated that a single crate of tomatoes could be sold for R100, and this income is useful in meeting some of their daily needs. 95 per cent of the participants in the community food gardening projects mentioned that during the peak of the harvesting season, they generate up to R664.50 a month by selling their surplus produce (refer to Table 1).

Although the income generated from the garden projects fluctuates, this income has reduced communities' dependence on government assistance. The other benefit of selling some of the produce to the local community is that people within the township are provided with the opportunity to purchase relatively cheaper freshly grown vegetables within their proximity.¹⁸ Having a community food garden provides both the gardeners and the local community with an opportunity to save money by not having to purchase relatively expensive vegetables from a commercial market.

Conclusions and Policy Recommendations

The Hammanskraal case demonstrates that community food gardens are potentially an effective tool for coming against the food shortages and income problems that confront

many South African households. Community food gardens have been very useful in subsidising the food basket of many households in the townships. This is a very important contribution, especially against the backdrop of skyrocketing food prices. Furthermore, food gardens provide a way of promoting urban agriculture, which is a key component of sustainable urban development. Not only is there infrastructure to cater for the population, there is also food available for the unemployed. This policy brief therefore makes the following policy recommendations:

- Additional support is needed for the food gardening activities of the urban poor in the country's cities. The most urgent support concerns the financing and sourcing of equipment required for use in their projects. More investments can be directed towards acquiring land for community food gardening and liaising with local schools' governing bodies and officials to allow participants to initiate gardens on school premises.
- A culture of information sharing should be developed and promoted. This can be done by setting up group meetings where gardeners are able to share skills, seeds and tools.
- In cases of water scarcity, solutions such as organic mulching should be considered by fruit and vegetable gardeners. Organic mulching also has the capability of reducing weeds in

Household economic indicator	Beneficiary average	Community baseline average	Variance
Household income	R3 047.50	R2 839.39	208.11
Monthly food expenditure	992.8571429	R1 152.78	-159.9228571
Monthly garden earnings	549.5	R664.50	-115
Monthly saving	323.75	R457.00	-133.25

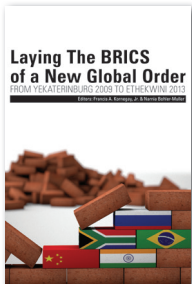
Table 1 Monthly Savings and Earnings from the Selling of Produce

a food garden and minimising expenditure on fertilisers.

- There is a need to organise and motivate communities to adopt gardening as a career. Gardening is an activity that can be carried out throughout the year, ensuring a perennial supply of vegetables and fruits, rather than practising it as a seasonal hobby. This demands the setting up of appropriate structures, and developing relevant skills courses for gardening activities.

References

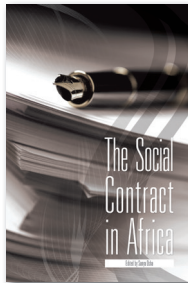
- 1 Food and Agricultural Organization (FAO). World Food Summit, Rome: FAO; 1996. [Homepage on the Internet]. c2010. Available at: <http://www.fao.org/docrep/003/w3613e/w3613e00.htm> [Accessed 20 August 2014].
- 2 Hosken, G., 2013. Twelve million going to bed hungry in SA. Available at: <http://www.timeslive.co.za/thetimes/2013/01/30/twelve-million-going-to-bed-hungry-in-sa> [Accessed 20 August 2014].
- 3 Lehohla, P., Millennium Development Goals: Country Report 2013. Government Gazette: Statistics South Africa.
- 4 Food Share. n.d. Community Gardening 101. Available at: <http://www.foodshare.net> [Accessed 20 August 2014].
- 5 Wills, J. et. al. 2009. Growing or connecting? An urban food garden in Johannesburg. *Health Promotion International*, 25(1), pp.1-9.
- 6 Hallberg, B., 2009. Using Community Gardens to Augment Food Security Efforts in Low-Income Communities. Masters of Urban and Regional Planning, Virginia Tech.
- 7 Battersby, J. & Maya, M., 2013. Growing Communities: Integrating the Social and Economic Benefits of Urban Agriculture in Cape Town. Faber, M. & Benade, A.J.S. 2003. Integrated home-gardening and community-based growth monitoring activities to alleviate vitamin A deficiency in village in South Africa. Available at: <ftp://ftp.fao.org/docrep/fao/005/y8346m/y8346m03.pdf> [Accessed 20 August 2014].
- 8 Mkandawire, A. G et. al. 2012. Africa's Quest for Food Security: What is The Role of Urban Agriculture? The African Capacity Building Foundation. Occasional Paper no.19.
- 9 Nell, W., Wessels, B., Mokoka, J. & Machedi, S., 2000. A creative multidisciplinary approach towards the development of food gardening. *Development Southern Africa*, 17(5), pp.807-819.
- 10 Henderson, B.R. & Hartfield, K., 2009. Is Getting into the Community Garden Business a Good Way to Engage Citizens in Local Government? *National Civic Review*, 98(4), pp.12-17.
- 11 Johannesburg City Parks and Zoo. 2013. The city of Joburg's drive against hunger [Online] 18 October. Available at <http://www.jhbcityparks.com/index.php/media-room-mainmenu-90/news-mainmenu-56/999-the-city-of-joburg-s-drive-against-hunger> [Accessed 20 August 2014].
- 12 Frayne, B., Battersby, J., Fincham, R. & Haysom, G., 2009. Urban food security in South Africa: Case study of Cape Town, Msunduzi and Johannesburg. Development Planning Division Working Paper Series No. 15.
- 13 Nxumalo, Z. & Gare, L., 2004. Community Tourism in Hammanskraal (Gauteng). Available at: [www.gttp.org/docs/casestudies/2004/04\\$APres.pdf](http://www.gttp.org/docs/casestudies/2004/04$APres.pdf) [Accessed 19 June 2014].
- 14 Siyakhana. n.d. A dynamic collaboration of people. Available at: <http://www.siyakhana.org/AboutUs.aspx> [Accessed 20 August 2014].
- 15 Department of Agriculture Forestry and Fisheries. (n.d). Production Guidelines for Tomatoes. Pretoria: Directorate Agricultural Information Services.
- 16 Henderson, B.R. & Hartfield, K., 2009. Is Getting into the Community Garden Business a Good Way to Engage Citizens in Local Government? *National Civic Review*, 98(4), pp.12-17.
- 17 The Citizen. 2014. Land proposals: food insecurity and high prices. *The Citizen* [Online] 07 April. Available at: <http://citizen.co.za/155713/land-proposals-food-insecurity-high-prices> [Accessed 22 August 2014].
- 18 Faber M., Witten C. & Drimie S., 2011. Community-based agricultural interventions in the context of food and nutrition security in South Africa. *S Afr J Clin Nutr*, 24(1), pp.21-30.



Laying the BRICS of a New Global Order From Yekaterinburg 2009 to eThekweni 2013

Edited by Francis A. Kornegay and Narnia Bohler-Muller

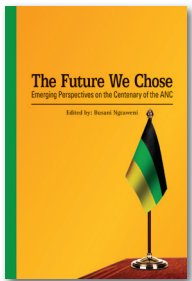
ISBN 987-0-7983-0403-0



The Social Contract in Africa

Editor: Sanya Osha

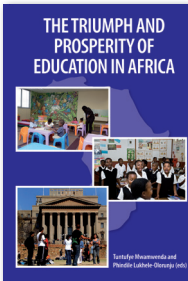
ISBN 978-0-7983-0444-3



The Future We Chose: Emerging Perspectives on the Centenary of the ANC

Editor: Busani Ngcaweni

ISBN 978-0-7983-0436-8



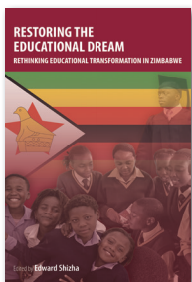
The Triumph and Prosperity of Education in Africa

Edited by Tuntufye Mwamwenda and Phindile Lukhele-Olorunju

ISBN 978-0-7983-0371-2



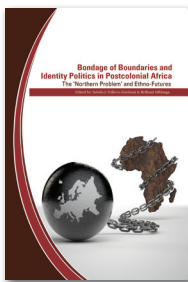
Incorporated into the HSRC since April 2014



Restoring the Educational Dream: Rethinking Educational Transformation In Zimbabwe

Edited by Edward Shizha

ISBN 978-0-7983-0407-8



Bondage of Boundaries and Identity Politics in Postcolonial Africa: The 'Northern Problem' and Ethno-Futures

Edited by Sabelo J. Ndlovu-Gatsheni and Brilliant Mhlanga

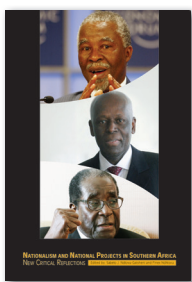
ISBN 978-0-7983-0391-0

Private Bag X41
Pretoria
0001
South Africa

134 Pretorius Street
Pretoria
South Africa
0002

Tel: +27 (0)12 316 9700
Fax: +27 (0)12 323 8153

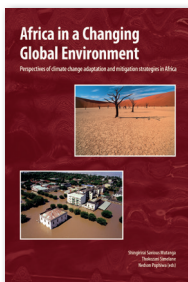
E-mail: publish@hsrc.org.za,
Website: www.hsrc.org.za



Nationalism and National Projects in Southern Africa: New critical reflections

Edited by Sabelo J. Ndlovu-Gatsheni and Finex Ndhlovu

ISBN 978-0-7983-0395-8

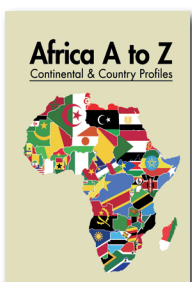


Africa in a Changing Global Environment: Perspectives of climate change and mitigation strategies in Africa

Edited by Shingirirai Savious Mutanga, Thokozani Simelane, Nedson Popiwa

ISBN 978-0-7983-0375-0

AISA is a statutory research body focusing on contemporary African affairs in its research, publications, library and documentation. **AISA** is dedicated to knowledge production, education, training and the promotion of awareness on Africa, for Africans and the international community. This is achieved through independent policy analysis, and the collection, processing and interpretation, and dissemination of information.



Africa A to Z: Continental & Country Profiles

Cartographer: Elize Van As



Forum on China-Africa Cooperation Knowledge, Skills and Development Cooperation

Edited by Li Anshan and Funeka Yazini April

ISBN 978-0-7983-0367-5

ISSN 1998-7994



9 771998 799009