# A Consequence of Success: The Issue of Contraceptive Security in Bangladesh

## A Discussion Paper

Anthony A. Hudgins, M.A.S.

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## DELIVER

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**DELIVER**
John Snow, Inc.
1616 North Fort Myer Drive, 11th Floor
Arlington, VA 22209 USA
Phone: 703-528-7474
Fax: 703-528-7480
Email: deliver_project@jsi.com
Internet: deliver.jsi.com

# Contents

# Tables



# Figures

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# Foreword

This paper, *The Consequence of Success: the Issue of Contraceptive Security in Bangladesh,* has been developed to examine the various facets of the issue. The success of the Family Planning Programme in Bangladesh has been an important contributor to the improvement of both health status and economic status of the country. However, the success, itself, has meant that demand for contraceptives has soared. The government must take steps, in collaboration with other family planning stakeholders, to ensure contraceptive security, so that *every person in Bangladesh is able to chose, obtain, and use quality contraceptives and other essential reproductive health products whenever s/he needs them.*

The issue is discussed very openly and broadly, organized around the "four pillars" of contraceptive security: 1) the ability for forecast requirements, 2) the ability for finance needs, 3) the ability to procure contraceptives, and 4) the ability to deliver contraceptives to those who need them.

The purpose of this paper is to provide policy makers with a discussion that will help inform the strategies that they need to develop and implement to assure contraceptives security for the country.

I would like to Mr. Anthony Hudgins for this valuable work. Thanks are also due to the many individuals within the MOHFW, in the donor community, and in other family planning organizations who discussed this issue with Mr. Hudgins and provided valuable insights into the issue as it presents itself in Bangladesh. DELIVER/JSI and USAID/Dhaka deserve special thanks for their technical inputs and financial assistance. I hope that this work will be found useful to all concerned.

M. Fazlur Rahman

Secretary

Ministry of Health and Family Welfare

# Executive Summary

The family planning effort of Bangladesh has been widely recognized as one of the most successful programs in the world. As a result of this success, prevalence of modern methods has risen from only 5 percent in 1975 to more than 43 percent in 2000. This increased interest in using contraceptives, coupled with an increase in the numbers of women of reproductive age, means that contraceptive requirements for Bangladesh will double in the next 15 years. Similar trends are being observed throughout the world. At the same time, donor budgets are level or shrinking, and, consequently, donors are no longer able to ensure a full supply of needed contraceptive products.

This paper explores issues in assuring the availability of this vastly increased volume of contraceptives for the people of Bangladesh. It focuses on four conditions for contraceptive security:

1. *The ability to accurately estimate requirements for contraceptives:* The Government of Bangladesh (GOB) has decades of experience in collecting data on contraceptive consumption and demand, and it has proven its ability to develop short-, medium- and long-term projections of need. In all scenarios for the future, commodity requirements will roughly double by 2015.

   Inherent in forecasting commodity needs is projecting changes in the method mix. Bangladesh experienced a recent shift from longer-term, more effective methods to shorter-term, less effective methods, including traditional methods. This has caused stagnation in the rate of fertility decline, even though contraceptive prevalence is increasing. Part of the work to be done to ensure contraceptive security includes examining the trends in method mix. Consistent with the rights of the people to use their methods of choice, decisions need to be made to increase access to a wide variety of methods for fertility regulation.

2. *The ability to coordinate financial resources to obtain contraceptives:* Through most of its history, Bangladesh has depended on donated supplies from donors that include USAID, DFID, CIDA, KfW, and UNFPA. The GOB, with some external assistance, has done a commendable job in coordinating these donor inputs. This dependence on external financial resources is now shifting to procurements using World Bank credits.

   Because of the low per-capita income in Bangladesh, options for cost recovery for publicly financed contraceptives are limited. For the foreseeable future, Bangladesh will continue to be largely dependent on World Bank loans to finance its contraceptives, augmented by continued donations from some international donors.

   The Bangladesh Social Marketing Company (SMC) is one of the most successful social marketing programs in the world. However, its success has been predicated on selling commodities at a price far below the international bulk purchase price, and it remains almost totally dependent on donated commodities. As Bangladesh develops a larger middle class who can purchase contraceptives at market prices, market segmentation strategies should be investigated, and the future role of SMC in generating revenue for contraceptives procurement should be reexamined.

3. *The technical resources to procure contraceptives on a timely basis:* As a result of the shift in financing for contraceptives to World Bank loans, the GOB had to begin its own international procurements under World Bank guidelines. This has been a somewhat difficult and time-

consuming process, leading to emergency procurements by UNFPA and emergency donations by the various international donors.

However, with considerable donor-financed technical assistance, the GOB has made progress. Additional effort is needed to develop the GOB's capacity to ensure efficient, timely, and transparent procurement of pharmaceuticals, including contraceptives.

4. *The ability to ensure reliable delivery and availability of contraceptives to the end customer:* The GOB, with substantial donor input, has created a functioning logistics system that distributes commodities to thousands of service delivery points throughout the country. This system has been responsive to disruptions in supply, and within reason, ensures availability of contraceptive products.

   However, the efficiency of this distribution system could be greatly improved. With the implementation of health sector reform—including unification of family planning with health—and with the projected increase in volume of commodities managed by the system, some difficult policy decisions need to be made regarding the future structure of the supply chain.

An increased focus on contraceptive security requires answers to, at least, the following policy questions:

- Should the GOB issue a new population policy at this time?
- Does public and political interest in family planning need to be reinvigorated?
- Should the wisdom and long-term feasibility of dependence on World Bank loans for an essential preventive health commodity like contraceptives be questioned?
- Should the status quo regarding the method mix be accepted? Discussion of this question will lead to a number of subsidiary questions, including:
  - Should the VSC program be reinvigorated?
  - Should there be more programmatic emphasis on IUDs and implants?
  - Should the public program cease supplying condoms, or even pills, and leave those methods to the SMC?
- How should NGOs and the SMC be used to segment the market?
- How should the donors change their modes of operating to further support availability of commodities?
- Is this an appropriate time for the GOB to make hard decisions about improving the efficiency of the supply chain?
- How can donors work together with the GOB to ensure continued and improved functioning of the supply chain?

**The Bottom Line:** Clearly, many parties, as a group, need to understand the problems associated with achieving contraceptive security, and they need to agree on a common vision of contraceptive availability. Many questions need to be answered about that common vision. This paper raises a number of issues and puts forth a call to action on several fronts. The Government of Bangladesh, and its funding and technical assistance partners, has long since demonstrated their commitment to building and improving a world-renowned voluntary family planning program. How can we now demonstrate our commitment to securing long-term availability of supplies to make sure those services are available to future generations of Bangladeshi women and men?

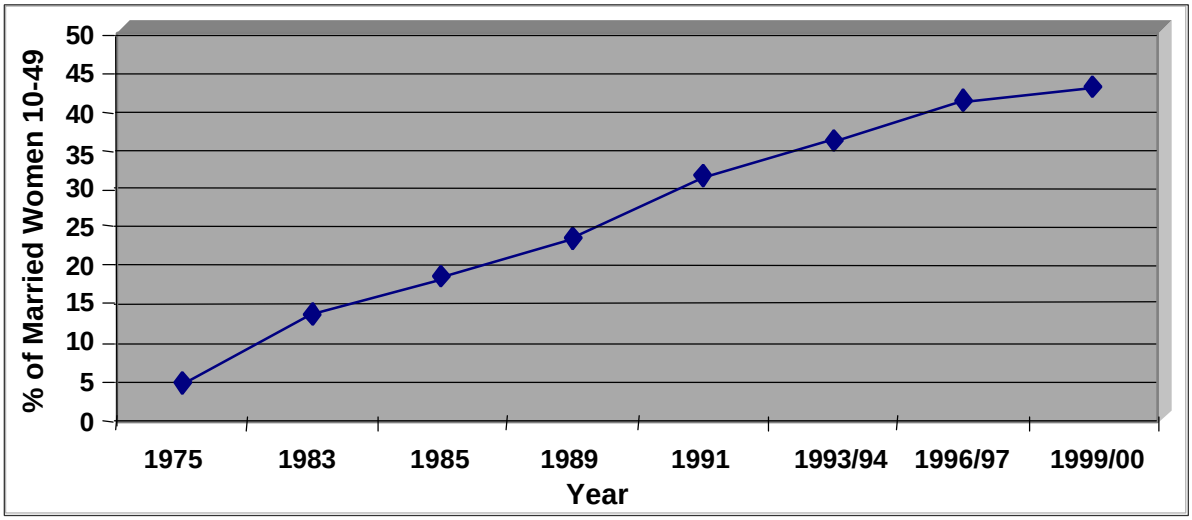
# Contraceptive Security in Bangladesh

The family planning effort in Bangladesh has been widely recognized as one of the most successful programs in the world. However, the continuous availability of contraceptives is not presently guaranteed. Paradoxically, contraceptive security has become a problem for Bangladesh— not as a result of failures by the Government of Bangladesh (GOB), the family planning programs, or the people of Bangladesh—but as a result of the *success* of these players in increasing the use of contraception in the country.

## Consequence of Success

Figure 1, taken from the *Bangladesh Demographic and Health Survey, 1999–2000* (BDHS 2001) shows the impressive increase in the use of modern contraceptive methods, from 5 percent in 1975 to more than 43 percent in 2000, with total contraceptive use (including traditional methods) increasing from 7.7 percent to 53.8 percent. This is an increase in *users* of modern methods from 800,000 to 14 million. This rapid increase in contraceptive users in a country like Bangladesh—with its high proportion of economically disadvantaged people and many infrastructural and cultural barriers to contraceptive use—is remarkable. An obvious consequence, however, is an enormous and increasing demand for contraceptives. This paper discusses what needs to be done to meet this demand and to ensure the availability of needed contraceptive commodities to the people of Bangladesh.

**Figure 1.**
*Current Use of Modern Methods*




## Mechanisms of Success

The National Population Policy for Bangladesh, developed in 1976, stated—

> The projected economic development on the basis of known and available resources cannot maintain this projected population at a minimum acceptable standard of living. Therefore, the compulsive need is to bring down the present numbers of 6.4 children born per woman to a replacement level of 2.6 by 1985 (Government of the People's Republic of Bangladesh 1976).

The GOB embarked on an ambitious program, in partnership with donors and other stakeholders, to make voluntary contraception available to the families of Bangladesh. This program included a broad range of activities:

- To improve access to contraception of its largely rural population, the GOB successfully staffed, trained, equipped, and supplied a vast network of more than 14,000 clinics.
- The GOB sent more than 25,000 family health field workers to distribute contraceptives directly to women in their homes—a particularly important activity for women who had restricted mobility due to the social norms of the time.
- The GOB successfully coordinated donor inputs for information, education, and communication (IEC) activities, service delivery improvement, logistics management support, and until recently, support for most the contraceptives required.
- The GOB made surgical contraception widely available to men and women. In the mid-1980s, there were approximately 500,000 procedures per year.
- The GOB, with donor support, successfully implemented a nationwide supply chain to maintain reasonable availability of contraceptives at the local level for all families.
- The Social Marketing Company (SMC) became one of the most successful programs in the world. It now supplies three-quarters of the condoms and one-quarter of the oral contraceptives used in Bangladesh through more than 130,000 retail outlets, ranging from large urban pharmacies to small stalls in villages.

Despite this success in increasing service availability and contraceptive prevalence rates (CPR), the BDHS now reports a recent stagnation of the total fertility rate (TFR)—the number of children each woman will have at current birth rates—at 3.3 per woman. This level is far from the replacement TFR of 2.6 that the country had hoped to reach by 1985 and now hopes to reach by 2005. Therefore, it is essential to continue focusing on improving and expanding the voluntary family planning program to reduce the rate of population growth. To resume the decline in Bangladesh's total fertility rate, increased attention must be given to contraceptive security.

## Contraceptive Security Defined

Contraceptive security (Hart 1998), a term coined by the Family Planning Logistics Management (FPLM) project, is analogous to the term "food security" originally defined by the UN Food and Agriculture Organization (FAO) in 1996.[*] A wide group of stakeholders now agree:

> *Reproductive health commodity security exists when every person is able to chose, obtain, and use quality contraceptives and other essential reproductive health products whenever s/he needs them.*[1]

Contraceptive security is mission critical. Without continuous availability of contraceptives, families will not be able to control their fertility, and family planning efforts will fail.

[*] FAO's definition of food security is a "state of affairs where all people at all times have access to safe and nutritious food to maintain a healthy and active life." UN Food and Agriculture Organization (FAO). 1996. *Food for All*. Rome: FAO. p. 64.

As described in the FPLM publication *Programs that Deliver: Logistics' Contributions to Better Health in Developing Countries* (Family Planning Logistics Management/John Snow, Inc. 2000), contraceptive security exists when four essential conditions are met. A reproductive health program has achieved contraceptive security when it continuously and consistently—

- Accurately estimates its requirements for contraceptives.
- Has (or coordinates) the financial resources to obtain contraceptives.
- Has the technical resources to procure contraceptives on a timely basis.
- Ensures the reliable delivery and availability of contraceptives to the end user for the medium- to long-term future (at least 10 years).

## Contraceptive Security: A Global and Local Issue

Contraceptive security is a global issue as well as an issue for Bangladesh. The goal of the Interim Working Group on Reproductive Health Commodity Security (IWG)[†] is to mobilize stakeholders and resources worldwide to pursue security for contraceptives and other reproductive health products. Meeting in May 2001, in Istanbul, the IWG noted that, for contraceptives alone, the gap between the need for donated supplies and the funding available to purchase them is projected to reach hundreds of millions of dollars by 2015. The IWG noted four major factors are contributing to the growing gap between resources and needs for contraceptive supplies *(*IWG 2001*),* all relevant in Bangladesh:

1. *Growing interest in contraceptive use.* The success of family planning programs worldwide has enabled more and more couples to choose to have smaller families. This trend increases the number of contraceptive users and requires an increased supply of commodities. Globally, the number of contraceptive users will rise by 28 percent in the next five years, and by 79 percent by 2015, an increase of 105 million users (Ross and Bulatao 2001).

   This same trend is evident in Bangladesh. While estimates vary depending on assumptions used in the projections, the increase in users of modern methods between 2000 and 2015 is approximately *11 million.*[‡]

2. *More people of reproductive age.* More people of reproductive age means more potential contraceptive users. Population growth, particularly the large size of recent generations, means that many people are just entering their reproductive years. An even larger group of adolescents will soon follow. Globally, the number of women of reproductive age is projected to grow by 36 percent by 2015 or 191 million women. This exceeds the total number of women who currently live in either Latin America or sub-Saharan Africa (Ross and Bulatao 2001).

   Bangladesh has a relatively young population. Between 2000 and 2015, the number of married women of reproductive age is expected to grow from 27.4 million to 39.6 million.

3. *Insufficient, poorly coordinated donor funding.* Donors do not provide enough money to meet the need for subsidized contraceptives, i.e., commodities for clients who cannot receive services through the private sector. A lack of coordination between national governments and donors, and

[†] A collaborative effort of John Snow, Inc. (JSI), Population Action International (PAI), the Program for Appropriate Technology in Health (PATH), and the Wallace Global Fund.

[‡] Based on the scenario 2 projection described later in this paper.

among donors, results in gaps in supply, duplication of efforts, or even donations of inappropriate products. Worldwide, by 2015, the gap between needed and provided funding is projected to exceed $100 million per year if current donor trends continue. Developing country governments and the private sector will not be able to make up for funding shortfalls of this magnitude (PAI 2001).

Bangladesh has successfully coordinated donor funding for contraceptives. However, many recent donations have been reluctantly given as emergency contributions to alleviate low stock situations arising from difficulties in procuring contraceptives using World Bank credits. There is no guarantee that current donations will continue.

4. *Inadequate logistics capacity in developing countries.* In most developing countries, extraordinary capacity building will be required to ensure a regular supply of contraceptives. The countries need both a stronger commitment by government to ensure a sustainable supply of contraceptives and expanded assistance to develop and implement plans and mechanisms for a secure supply chain.

   Bangladesh, with the help of externally funded technical assistance, has developed large, successful supply chains for both the Ministry of Health and NGOs, and separately for SMC. These supply chains function relatively well, in most cases ensuring contraceptive availability to customers. However, the efficiency and cost-effectiveness of these distribution systems could be substantially improved. Moreover, the distribution systems are still supported, to some extent, by external donors.

# Current Status of Contraceptive Security in Bangladesh

Of the four essential conditions (forecasting, financing, procurement, and delivery) for achieving contraceptive security described earlier, the third—ability to procure—has been the most difficult for Bangladesh in the recent past. Currently, the other three conditions are more satisfactory—the country is able to estimate its commodity requirements; the GOB has financial resources reasonably assured for the intermediate term (through 2008); and logistics systems and service delivery capacity for reproductive health are adequately robust.

From this point, the paper will explore how conditions for contraceptive security in Bangladesh may change during the next 15 years. The paper will not provide a blueprint for the future of contraception, but it does explore options—and raise the policy issues that surround these options—to be considered by everyone with a stake in the future of reproductive health in Bangladesh.

**The Bottom Line:** The success of the Bangladesh program in increasing use of modern contraception has resulted in an enormous need for commodities—a need that will not be easily satisfied without increased attention to contraceptive security. Today, Bangladesh is entirely dependent on World Bank credits and donor commodity grants to meet its contraceptive requirements, and it has no plans to reduce this dependence. *All* family planning stakeholders must be committed to solving this problem.

# Contraceptive Security Condition 1

## Ability to Accurately Estimate Requirements for Contraceptives

Bangladesh has been particularly successful in accurately projecting contraceptive requirements. Among the factors contributing to requirements estimates that have been available on a continuous basis, and that reflect a high degree of dependability, are the—

- Existence of a successful logistics management information system (LMIS) that produces current information on quantities of contraceptives dispensed to users.
- Interest of a well-educated cadre of demographers (trained domestically and internationally) using well-executed DHS surveys for forecasting.
- Priority placed on adequate supplies, both by GOB officials and donors.

## Short-Term Estimates: Success of the GOB's LMIS

Since the late 1970s, the Government of Bangladesh has focused considerable resources on collecting data on consumption of contraceptives and stocks on hand from the lowest levels of the service delivery system. To make this data more readily available, the GOB embarked, in the 1980s, on an effort, supported by USAID, to harness newly available microcomputer technology for compiling data from the many reporting points in the country. Among other management reports, the LMIS produces a monthly Pipeline Report that summarizes national data on consumption and stock on hand, allowing scheduling of international shipments to minimize understocking and overstocking of commodities at the national level. These data are also used to manage the movement of supplies through the in-country distribution system, reducing the level of stockouts at service delivery points to a minimum.

Three data elements must be known to ensure short-term availability of commodities:

- current and future consumption
- balances on hand
- expected shipment schedule.

Table 1, a section of a recent Bangladesh Pipeline Report, displays the required data elements. (The entire report projects stock status for another one and a half years.) Note that this figure is shown only as an example of microcomputer analysis available to the Government of Bangladesh for its short-term estimation of needs.

**The Bottom Line:** It is vital that the current LMIS continues to be managed, monitored, and improved. As shown in figure 2, the LMIS produces information vital for short-term procurement planning. To maintain adequate supplies in the country, appropriate quantities must be procured and timely shipments scheduled.

**Table 1. Example of Data from the GOB LMIS Pipeline Report Stock Status of Injectables by Funding Source and Contract (January 2001 to December 2001)**

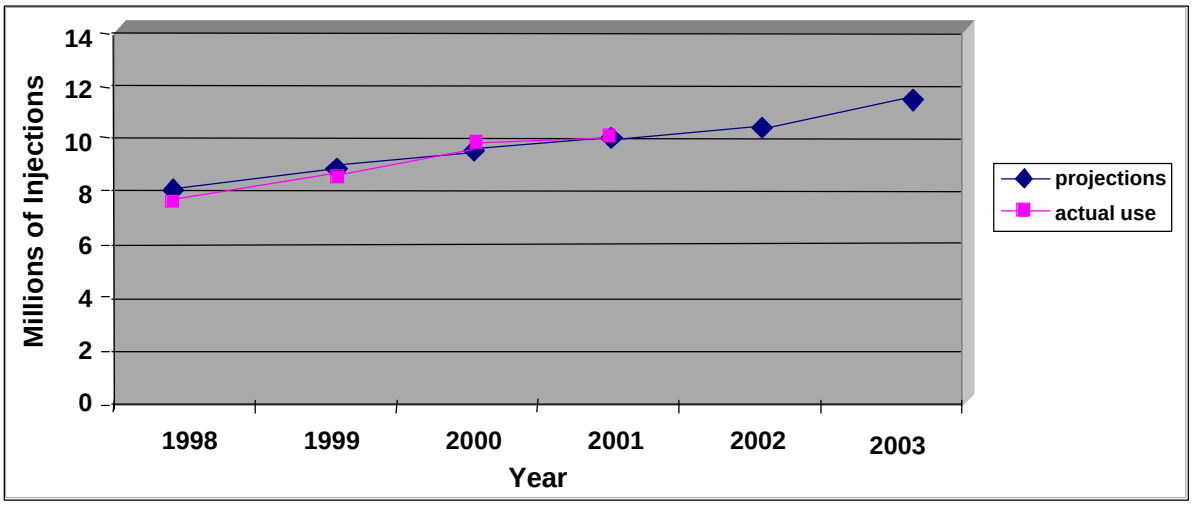
| Month | Opening Balance | Shipment Received/Expected/Planned | | | | | Consumption | Closing Balance | MOS |
|---|---|---|---|---|---|---|---|---|---|
| | | IDA Qnty : 5 m (Organon) (Proc by DFP) | UNFPA Qnty: 0.62 m US$0.5m (Proc by UNFPA) | DFID-Dutch Qnty: 8 m (Proc by UNFPA) | IDA Qnty: 31 m Three years rolling plan (Proc by DFP) | Total | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7= (3+4+5+6) | 8 | 9 | 10= (9 / 8) |
| Jan-01 | 2,644,422 | 132,300 | | | | 132,300 | 881,998 | 1,894,724 | 2.1 |
| Feb-01 | 1,894,724 | 874,700 | | | | 874,700 | 779,808 | 1,989,616 | 2.6 |
| Mar-01 | 1,989,616 | 504,000 | | | | 504,000 | 693,683 | 1,799,934 | 2.6 |
| Apr-01 | 1,799,934 | 504,000 | 611,984 | | | 1,115,984 | 760,000 | 2,155,918 | 2.8 |
| May-01 | 2,155,918 | 1,008,000 | | 1,000,000 | | 2,008,000 | 760,000 | 3,403,918 | 4.5 |
| Jun-01 | 3,403,918 | 500,000 | | 1,000,000 | | 1,500,000 | 760,000 | 4,143,918 | 5.5 |
| Jul-01 | 4,143,918 | 500,000 | | 1,000,000 | | 1,500,000 | 800,000 | 4,843,918 | 6.1 |
| Aug-01 | 4,843,918 | 500,000 | | 1,000,000 | | 1,500,000 | 800,000 | 5,543,918 | 6.9 |
| Sep-01 | 5,543,918 | 500,000 | | 1,000,000 | | 1,500,000 | 800,000 | 6,243,918 | 7.8 |
| Oct-01 | 6,243,918 | | | 1,000,000 | 2,000,000 | 3,000,000 | 800,000 | 8,443,918 | 10.6 |
| Nov-01 | 8,443,918 | | | 1,000,000 | 3,000,000 | 4,000,000 | 800,000 | 11,643,918 | 14.6 |
| Dec-01 | 11,643,918 | | | 1,000,000 | 3,000,000 | 4,000,000 | 800,000 | 14,843,918 | 18.6 |
| **Jan 01-Dec 01** | | **5,023,000** | **611,984** | **8,000,000** | **8,000,000** | **21,634,984** | | | |

# Intermediate Estimates: Official Projections Approved in 1999

During the mid-1990s, there was considerable disagreement in Bangladesh regarding intermediate-term estimates of needs based on demographic projections. These disagreements arose primarily from the complexity of population dynamics and honest, professional differences among academic demographers in Bangladesh. As a result of these differences in opinion, the Family Planning Logistics Management (FPLM) project commissioned a respected demographer, Dr. Ataharul Islam, Professor, Department of Statistics, University of Dhaka, and his colleague, Mr. Nitai Chakraborty, Associate Professor of the same department, to carefully prepare and defend projected contraceptive requirements from 1998 to 2003.

A forecasting workshop on was held on May 13, 1999, jointly organized by the Directorate of Family Planning (DFP) and FPLM. The goal of the workshop was to agree on consensus forecasts of contraceptive needs to be used by donors and the GOB for procurement under the World Bank project. The proceedings were endorsed by the GOB and published (Islam, Ataharul, and Chakraborty 1999). Figure 2 is an example forecast from this exercise compared with actual use, and it shows how accurate the forecasts have been.

**Figure 2.**
*Depo-Provera: Actual Use Versus Projections*




As figure 2 shows, actual use has been very close to the projections endorsed by the GOB.[§]

**The Bottom Line:** Intermediate-term demographic forecasts must be regularly updated and approved by the GOB. These forecasts will inform decisions regarding financing of future purchases.

## Long-Term Projections: A New Effort to Ensure Contraceptive Security

Because of the utility of the intermediate-term demographic projections, Dr. Islam and Mr. Chakraborty were commissioned to update projections of commodity needs for a longer period, extending through 2015 (Islam, Ataharul, and Chakraborty 2000), allowing policymakers to better understand and plan for longer-term needs. Long-term projections have a much greater margin of error than short- or intermediate-term forecasts. Their purpose is to highlight the magnitude of future needs for planning purposes, not to pinpoint quantities for actual procurement.

In preparing a long-term demographic forecast, assumptions about all the determinants of fertility must be made. One major assumption, and the subject of much discussion in Bangladesh, are future changes in the method mix. The recent *Bangladesh Demographic and Health Survey 1999–2000* raised considerable concerns among the population and family planning community in Bangladesh. Although the prevalence of contraceptive use increased from 44.6 percent in the 1993–1994 BDHS to 53.8 percent in the 1999–2000 BDHS, TFR remained essentially static at 3.3, far above the GOB goal of replacement fertility. In May 2001, a UNFPA consultant, presenting to concerned donors and others in the Bangladesh family planning community, reasoned that the main explanation for the absence of an expected decline of TFR in the face of increasing contraceptive prevalence was a shift from more effective methods to less effective methods—

[§] "Actual use" for 2001 includes partial data and expected distribution for the rest of the year based upon logistics data and sales data from the SMC.

- an increase in less effective traditional methods (largely withdrawal and periodic abstinence)
- high discontinuation rates of temporary modern methods (pills and injectables being the most important)
- a long-term decline in surgical contraception (Kamal and Nashid 2001).

Surgical contraception is the most prevalent contraceptive method in the world. During the 1980s, it also proved popular in Bangladesh, with approximately 500,000 procedures in 1985 (Ministry of Health and Family Welfare/AVSC International 2000). Beginning in the late 1980s, the number of procedures declined dramatically, to a current level of about 50,000 procedures per year. The percentage of married couples using female sterilization declined from 9.1 percent in 1991 to 6.7 percent in 1999–2000. The percentage using male sterilization declined from 1.2 percent to 0.5 percent. The reasons for the declines are discussed in an excellent assessment report by the MOHFW and AVSC International (Ministry of Health and Family Welfare/AVSC International 2000).

Many people in the Bangladeshi family planning community believe that these highly effective, permanent methods should be more readily available, because in Bangladesh women marry early and complete their desired fertility early. The average age for tubal ligation in Bangladesh is 29; a single surgical procedure will protect couples of this age from pregnancy over many years of remaining fertile life, with no further need for contraceptive commodities. Thus, the future use of surgical contraception will significantly affect the need for contraceptive commodities and, consequently, the strategies for achieving contraceptive security.

For these reasons, the long-term projections were made using three different method-mix scenarios. All three scenarios represent an attainable increase of total contraceptive prevalence to 69 percent by 2015, and take into account an increased use of condoms that result from the HIV/AIDS pandemic, but they otherwise differ as follows:

- *Scenario 1* represents a status quo method mix, with only modest increases (related to population growth) in surgical contraception procedures and a continued decline in prevalence of this method. It results in a TFR of 2.6 by 2015.
- *Scenario 2* represents a moderately restored surgical contraception program, yielding gradual increases in prevalence. It results in a TFR of 2.5 by 2015.
- *Scenario 3* represents a substantially reinvigorated surgical contraception program. To accomplish this scenario, the community must begin implementation of recommendations of the MOHFW/AVSC assessment immediately. It also represents a shift from traditional methods to modern temporary methods—especially IUDs and Norplant®. It results in a TFR of 2.2 (usually considered replacement fertility) by 2015.

For all scenarios, the commodity projections are daunting. For example, table 2 shows, in scenario 1, that the need for contraceptives will *double* by 2015.

**Table 2. Quantities of Contraceptives Needed (Millions of Units — Scenario 1)**

| Method | 2000 | 2005 | 2010 | 2015 |
|---|---|---|---|---|
| Condom | 211.500 | 298.500 | 375.000 | 433.500 |
| Orals | 88.800 | 118.800 | 150.200 | 175.500 |
| Injectable | 9.760 | 14.000 | 17.160 | 20.600 |
| Norplant | 0.050 | 0.069 | 0.084 | 0.096 |
| IUD | 0.189 | 0.257 | 0.313 | 0.358 |

**The Bottom Line:** To achieve lasting contraceptive security for Bangladesh, program managers and policymakers will need to monitor the method mix and alter programs to make longer-term methods, such as IUDs and surgical contraception, more easily available to families who want to use them.

# Contraceptive Security Condition 2

## Have or Coordinate the Financial Resources to Obtain Contraceptives

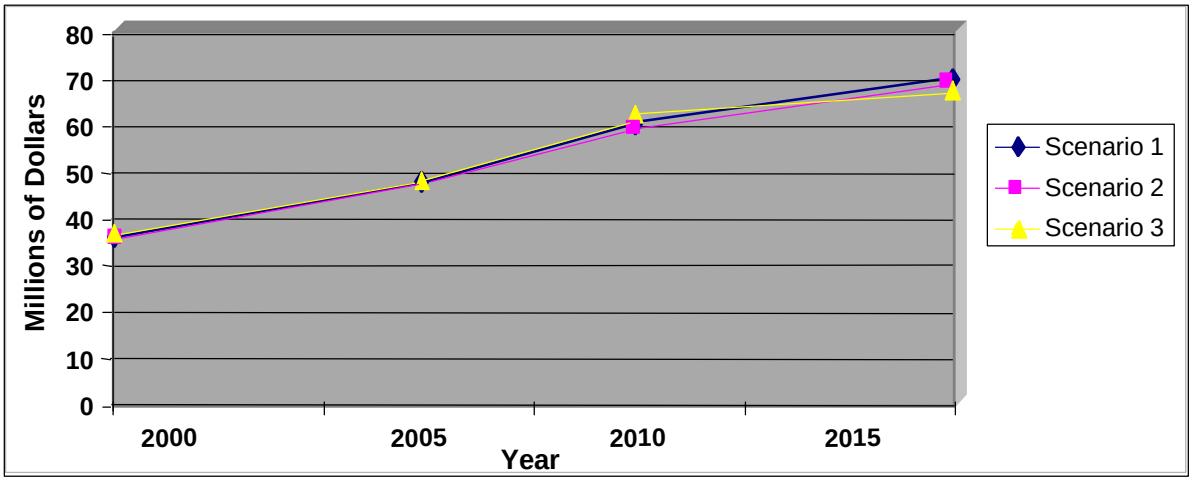
If contraceptive commodities needs double by 2015, as projected (see figure 3), the cost of commodities is expected to double as well. Table 3 displays the annual cost implications of scenario 1, without allowing for inflation:

**Table 3. Annual Cost for Contraceptives (Millions of U.S.$—Scenario 1)**

| Method | 2000 Cost | 2005 Cost | 2010 Cost | 2015 Cost |
|---|---|---|---|---|
| Condom | $6.35 | $8.96 | $11.25 | $13.01 |
| Orals | 20.42 | 27.32 | 34.55 | 40.37 |
| Injectable | 6.83 | 9.80 | 12.01 | 14.42 |
| Norplant | 1.19 | 1.64 | 2.00 | 2.28 |
| IUD | 0.19 | 0.26 | 0.31 | 0.36 |
| **TOTAL** | **$34.98** | **$47.98** | **$60.12** | **$70.44** |

Figure 3 shows the annual cost for all three scenarios. Scenario 3 is the most ambitious plan, producing the lowest TFR, and lower costs for commodities (by 2015 are $2 million lower, at $68 million per year), because this scenario assumes a higher rate of surgical contraception, which reduces the commodity burden described earlier.

**Figure 3.**
*Annual Cost for Contraceptives*




## Financing Options: A Cautionary Discourse

The Interim Working Group on Reproductive Health Commodity Security described several financing options (in addition to increasing in-country public sector budgets) for reproductive health commodities (IWG 2001):

### Financing Options

- Charge fees for contraceptives/reproductive health services in the public sector.
- Communities finance contraceptives/reproductive health services.
- Expand the private sector's role in providing contraceptives/reproductive health services.
- Cover contraceptive/reproductive health services under a national health insurance or social security program.

All options shift financing for commodities from donations (or purchases under World Bank loans) to the client or to the tax burden of the developing country. While such strategies may be appropriate in middle-income countries, they may not be appropriate for countries like Bangladesh, where the government and the people still struggle with widespread poverty, overpopulation, and a birth rate too high to be sustained. The remainder of this section discusses the pros and cons of each of these financing options.

## Financing Options 1, 2, and 4: Increasing Public Sector Revenues

The three options are designed to increase revenues in the public sector for purchasing contraceptives. Option 2—community financing—is probably limited because of the poverty of the population and also concerns for privacy of the user in this still-conservative country. Also, because of its poverty and disseminated rural population, Bangladesh does not have an active health insurance system or social security system, so, at this time, option 4 is irrelevant.

Many countries—particularly middle income countries—charge for contraceptives in the public sector. However, many lower income countries that charge such fees (e.g., in West Africa) have very low prevalence rates. While it is difficult to determine whether the token charges in these countries are a barrier to use, this experiment is unwise for Bangladesh.

Outside the reproductive health sphere, public sector fees for essential drugs and establishment of revolving drug funds are often a key strategy in health sector reform (although they are not part of the Bangladesh effort). However, *no* country in the lowest income bracket has been successful in full cost recovery. Even Ghana's often-cited cash-and-carry revolving drug fund must be periodically recapitalized using World Bank credits (Vian and Taryn 2000). Moreover, as the IWG notes, it is the experience in many countries that optimal benefits are attained when these fees are retained at the lowest level of the service delivery system to cover recurring costs, such as transportation to pick up or deliver commodities, copying of needed reporting forms, or limited procurement of commodities on the local market. However, this beneficial—and often recommended—practice limits the availability of funds for procurement of drugs or contraceptives.

The IWG notes that there is little documentation in the literature of community financing for contraceptives or reproductive health services. Bangladesh is just beginning to experiment with community financing of health care, in general, through membership subscription in NGOs associated with the Urban Family Health Partnership (UFHP) (Kabir and Urban Family Health Partnership 2001). Building on such experiments, NGOs that serve a more affluent portion of the population might be able to procure and sell a contraceptive product perceived to be upscale, such as a desogestrol-based triphasic or very low estrogen combination orals (IWG 2001). This would allow

consumers to self-select a contraceptive that could be self-sustaining for the NGOs. Such strategies, however, must be viewed as intermediate solutions to long-term endeavors.

## Financing Option 3: Expanding the Private Sector Role in Providing Contraceptives

The IWG notes a series of government regulatory and policy constraints that may interfere with development of the "true private sector" (as distinguished from the subsidized social marketing sector). In Bangladesh, there is no obvious policy or regulation that would constrain the commercial sector. Over-the-counter sale of contraceptives is permitted, and there are no onerous taxes, import restrictions, restrictions on advertising, or price controls. In fact, Bangladesh has an active, affordable private sector market in pharmaceuticals. However, it is unlikely in the near term that the true private sector can play a major role in contraceptive security for Bangladesh. The extremely low per capita income and resulting low purchasing power of the population, combined with the very low (subsidized) prices of contraceptives offered through the successful social marketing program, make competition by unsubsidized products on a large scale financially impossible.

The IWG's publication on financing (IWG 2001) suggests a general strategy of shifting the cost burden of commodities by increasing the commercial sector's share of the family planning market. Figures are presented for Bangladesh that imply more than 18 percent of public costs could be saved with a 20 percent increase in commercial share, and that 26 percent could be saved with a 40 percent increase in the commercial share. But, the great majority of the commodity distribution in Bangladesh attributed to the commercial sector is actually sales by SMC, which presently sells *donated* contraceptives. Simply increasing SMC sales under the current pricing and procurement scenario would actually require an increase in donations or purchases by the GOB using World Bank loans, rather than shifting the burden of contraceptive supply to the private sector.

To reduce public funding for SMC commodities, prices would need to be increased to cover SMC's costs of bulk procurement and distribution. Such a strategy would also change the financial equation for the true private sector. The remainder of this section discusses the many ramifications of such a drastic policy decision.

## Role of the Social Marketing Company in Bangladesh

The social marketing program in Bangladesh has been operating for more than 25 years, and is one of the most successful programs in the world. SMC has been able to offer their commodities at prices substantially below the bulk cost of the contraceptives themselves, because almost *all* their commodities are donated. Funds collected as a result of sales are used for retailer mark-up, distribution costs, and promotion of the products. Table 4 compares the sales price of the products with international bulk procurement prices.

**Table 4. Comparison of Retail Sales Price with Bulk Procurement Price**

| Brand | Sales—FY2001 | Retail Price per Unit | International Bulk Price |
|---|---|---|---|
| Raja Condoms | 105 million | 0.5 taka ($.009) | $.03 |
| Panther Condoms | 34.4 million | 1.25 taka ($.0231) | $.03 |
| Sensation Condoms | 9.0 million | 3.33 taka ($.062) | $.03 |
| Femicon* (Microgynon) | 19.8 million | 5 taka ($.093) | $.23 |
| Minicon** (Progestin only) | 2.4 million | 5 taka ($.093) | $.23 |
| Nordette | 6.3 million | 15 taka ($.28) | $.23 |
| Depo-Provera | 140 thousand | 20-30 taka ($.37-.53) | $.73 |

* Previously Duofem

** Previously Ovrette

In volume, SMC dominates the distribution of condoms, having sold approximately 150 million during 2000 or about 74 percent of the condom distribution in the country. (The MOH distributes approximately 55 million per year.) SMC sells three brands. The most popular is Raja, which is marketed to the poorest class of purchaser for 1 taka for two pieces (approximately U.S.$.009 per condom); a slightly upscale brand, Panther, sells for 5 taka for a pack of 4 (approximately U.S.$.0231 per piece); and the upscale Sensation sells for taka 10 for a pack of 3 (approximately U.S.$.062 per piece). The first two brands account for more than 90 percent of the SMC condom sales and have always been received by the SMC as donations, either from foreign donors or from the GOB as part of its purchase under the World Bank loan. Sensation condoms, with sales of only 8.4 million in 2000, have at times been procured using SMC's own funds, but short-term will be supplied through IDA credits. As table 5 shows, only Sensation condoms yield a gross margin above international bulk costs of roughly U.S.$.03 per condom.

The SMC is also active in the oral contraceptive market, with its share having risen to about 22 percent in 2000. SMC's oral contraceptives have been supplied by KfW and USAID, and are sold at 5 taka per cycle (U.S.$.093), also well below the international bulk cost of approximately U.S.$.23 per cycle (SMC 2001).

The SMC, under their Bluestar program, also sells Depo-Provera injectables with syringe, to about 400 physicians and 1,500 non-graduate providers. Depo-Provera is sold to the provider for 12 taka (U.S.$.22), who marks them up to 20–30 taka (U.S.$.37-.53), still well below the international bulk price of U.S.$.73.

Therefore, with the exception of Sensation condoms, SMC would need to make substantial price increases to recover enough revenue to purchase its own contraceptives. While such a strategy, in theory, would enable true private sector competition, there are historical reasons for charging such low prices, as well as cautionary experiences from a decade ago when sales prices were increased in Bangladesh.

## Social Marketing in Bangladesh—Market Segmentation or Market Expansion?

Globally, there is considerable controversy about the preferred role of social marketing programs. The question is whether their primary goal should be to expand availability to all segments of the population, including the very poor, or the goal should be a way to segment the market, to enable

those with enough income to pay to be self-supporting, rather than depending on subsidies from either international donors or governments. Sine (Sine and Jeffrey 2002) and others feel the need for subsidized contraceptives may be overstated, while others (Hovig and Dana 2001) feel there is still a major need for free or heavily subsidized contraceptive to provide the options to the people of countries like Bangladesh. In any case, a review of the literature suggests that the second model (self-supporting) has only shown success in middle-income/high-prevalence countries. While Bangladesh certainly has a high contraceptive prevalence, it has not become a middle-income country.

Philip Harvey, in his book *Let Every Child Be Wanted* (Harvey 1999), refers to the first of these two models as "traditional" social marketing. The Bangladesh and Indian social marketing programs were the first two examples of the traditional model. India's program, which started in 1968; Bangladesh's program built on this experience, starting in 1975. At this time the objectives of Bangladesh's social marketing efforts were *not* cost recovery. With the highest population density in the world (except for a few city-states), and a contraceptive prevalence of only 5 percent, the program's objectives were to rapidly increase contraceptive use, and to use the revenues generated to support advertising and other commercial marketing methods to increase knowledge and demand. Other benefits included decreased wastage, improved control and measurement, and avoidance of coercion.

Harvey also refers to programs that he calls the "new breed" of social marketing, which recognize the limits of international donors in continuing funding for ever-increasing quantities and types of subsidized commodities. In establishing these new programs, donors intend to fund only initial marketing efforts, with retail prices high enough to be self-sustaining, enabling the donor to exit and leave a successful program in place. This strategy is sometimes referred to as the "manufacturer model."

Harvey recognizes that there are some countries, particularly middle-income countries, that can successfully segment markets and develop programs to become true private-sector, self-sustaining contraceptive marketing systems. However, he notes that these countries have much higher per capita GNPs than countries like Bangladesh.

Harvey and PAI (Harvey 1999) have proposed a notional figure regarding affordability of contraceptives—that no one should spend more than 1 percent of per capita GNP on contraception and, ideally, expenditures should not exceed 0.7 percent (Harvey 1999). While this concept may be debated, it is an instructional starting point for assessing the appropriateness of pricing by SMC in Bangladesh. With a per capita GNP of $299 (Asia Week 2001) (compared, for example, to $1,900 in Columbia), table 5 shows the percentage of per capita GNP an individual would need to spend per year to purchase SMC commodities.

**Table 5. Percentage of Per Capita GNP Needed to Purchase Contraceptives (SMC)**

| Method | Price per Unit | Cost per Year | % of per Capita GNP |
|---|---|---|---|
| Raja | $0.009 | $1.13 | 0.4 |
| Panther | $0.0231 | $2.89 | 1.0 |
| Sensation | $0.062 | $7.75 | 2.6 |
| Orals | $0.093 | $1.12 | 0.4 |
| Nordette | $0.28 | $3.64 | 1.2 |
| Depo Provera | $0.37 | $1.48 | 0.5 |

Raja condoms, orals, and Depo-Provera are still priced to meet the objective of serving the poor. Sensation condoms and Nordette (which will be self-procured by SMC) are aimed at a more prosperous market segment.

Though SMC's goals have been increased availability and use, the SMC leadership understands the reality of donor fatigue and the need to move toward increased recovery of commodity costs. Their strategy states—

> For revenue to increase to the projected level, SMC will have to make some significant changes in the pricing of its existing brands. Out of the 7 contraceptive brands that SMC currently markets, 5 are subsidized, thus the revenue generated from their sales falls short of meeting their commodity cost and marketing expense. Therefore the more these brands sell, the more subsidy is needed to support them. SMC thus plans to shift 2 out of the 5 subsidized contraceptive brands to profit levels by increasing their price so that no subsidy is needed to support them. However, SMC will continue to market a condom, a pill and injectable at subsidized prices to fulfill its social marketing mandate. Revenue generated from profitable brands will help cross-subsidize its 3 low price brands (SMC 2001).

An important aspect of this strategy is that SMC plans to continue the very low price of some brands, drawing on their experience with a significant drop in sales when the price for Raja's was increased in 1990 (Ciszewski and Harvey 1995). To be able to continue furnishing at least one low-cost brand, the SMC needs to come to an agreement with the GOB to receive a stable supply of subsidized products. The SMC plans to raise the price of their Panther condom, as well as their progestin-only pill (Minicon) to meet financial objectives. Furthermore, the company is contemplating procurement of Chinese-manufactured condoms at a bulk price of 1.07 taka (about U.S.$0.02), which would improve the margin on condom sales. In their long-term contraceptive security strategy, SMC states that by 2010 they plan to self-finance 50 percent of commodity costs and 100 percent of operating costs (SMC 2001).

SMC's strategy dovetails well with several "conditions for success" noted by the IWG:

- An array of public and private price, provider, and method choices for family planning client market segments will be available based on the client's ability and willingness to pay.
- Prices for contraceptives will mirror those of affordable household items and other necessities.
- Fees will be one part of a wider contraceptive financing strategy (e.g., investigating decreased costs of bulk purchasing) (IWG 2001).

# Donor Commitment to Bangladesh

As discussed earlier, many donors have contributed to the success of the family planning program in Bangladesh. Many of their donations have been commodities. But, the IWG has clearly identified the growing gap between donor resources and increasing global needs. As the earlier discussion indicates, Bangladesh's needs will also grow rapidly under all future scenarios.

Moreover, many have spoken—both globally and in Bangladesh—of donor fatigue in the provision of commodities. Table 6 shows recent donations and procurements, as well as future plans of Bangladesh's donors. The fact that the value of donated supplies actually *increased* from $22 million to $37 million seems to belie the fear of donor fatigue. It is important to emphasize that the

commodities funded by DFID and the Dutch were *one time* allotments, with no assurance of continuation. The USAID funding of SMC condoms was also an emergency donation to avoid stockouts caused by delays in procurement using World Bank funds. The emergence of KfW as a major donor is the only increase that is likely to continue, except for level funding of UNFPA's direct donations. Moreover, many of the donations in 2001 were to fill a pipeline depleted by delays in earlier procurements. Discussions with donors other than KfW and UNFPA gave clear indications of reluctance to continue donations of commodities at current levels or even at all.

**Table 6. Recent Commodity Donations and Future Plans (Millions)**

| Source | 2000 Received | 2001 Expected | Future Plans |
|---|---|---|---|
| CIDA | 26.6 orals | 10.7 orals | Procurement under current plans finished. Future procurement has not been determined. |
| **Value** | **$6.118** | **$2.461** | |
| **DFID/Dutch** | | 20.0 condoms<br>8.0 injectables<br>0.1 IUDs | A one-time global procurement through UNFPA. Local Mission intends to support the sector program rather than donate commodities directly. |
| **Value** | | **$6.300** | |
| **KfW** | 3.1 orals | 72.9 orals | For the intermediate term, it is likely that KfW will continue donating substantial quantities of pills. |
| **Value** | **$0.713** | **$16.767** | |
| **UNFPA** | 38.1 condoms<br>1.2 inject. | 3.9 condoms<br>30.0 condoms (SMC) | UNFPA donates $1 million in commodities annually, and will probably continue. |
| **Value** | **$1.983** | **$1.017** | |
| **USAID ( for SMC only)** | 133.1 condoms<br>19.2 orals | 68.2 condoms<br>24.9 orals<br>0.55 injectables | Commodities for the SMC were provided on an emergency basis because of lack of timely procurement under World Bank loan. No intention of further condom donations; future donations of pills and Depo Provera. |
| **Value** | **$13.507** | **$10.946** | |
| **World Bank Loan** | 85.6 condoms<br>5.8 inject.<br>0.3 IUDs | 40.0 condoms<br>74.3 orals<br>10.0 injectables<br>40.0 condoms (SMC) | $180 million committed to health commodities in current loan. It is likely that commodities will also be included in the next 5-year loan, starting in 2002. |
| **Value** | **$6.928** | **$26.489** | |
| **SMC-procured** | | 6.5 condoms | SMC plans to continue procurement of its up-scale *Sensation* brand. |
| **Value** | | **$0.195** | |

# Commitments by the Government of Bangladesh/World Bank—HPSP and NHPSP

The current Health and Population Sector Program (HPSP), funded by the GOB, the World Bank, and other donors, commits a total of $180 million to procurement reproductive health commodities. These funds are now being used to largely replace reductions in donated contraceptives. It is very likely that the next World Bank project, the Nutrition, Health and Population Sector Program (NHPSP) will also contain provisions for procurement of large quantities of contraceptives to support the government and SMC programs (Kang and Ahmed 2001).

# Future Financing for Contraceptive Security

Table 7 shows a highly speculative look nine years into the future. The table is based on scenario 1 of the long-term forecast. Among many assumptions, table 7 assumes that SMC will continue to increase its market share, reaching its own stated goal of covering 50 percent of its commodity costs, and that the above analysis of donor inputs is essentially correct. All these assumptions, as well as projections of commodity use, will change in nine years.

**Table 7. Possible Funding Scenario for Contraceptives—2010 (Millions)**

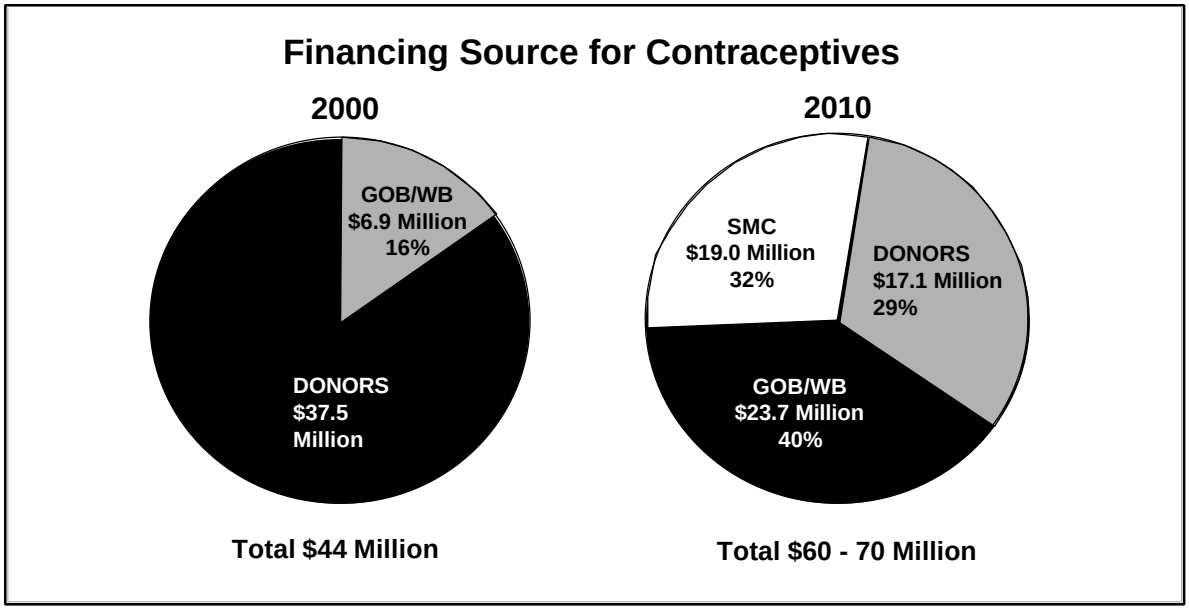
| Method | Total Cost | GOB/WB | SMC* | Donors** |
|---|---|---|---|---|
| Condoms | $11.25 | $6.25 | $5.00 | |
| Orals | $34.55 | $6.60 | $12.50 | $15.45 |
| Injectables | $12.01 | $10.51 | $1.50 | |
| Norplant | $1.68 | | | $1.68 |
| IUD | $0.31 | $0.31 | | |
| **TOTAL** | **$59.80** | **$23.67** | **$19.00** | **$17.13** |

* condom, 90%; orals, 60%; injectables, 25% (50% SMC paid).

** KfW (or other donors) provide 70% of orals not paid for by SMC.

The dramatic change envisioned in table 7 are best described by the graphic description in figure 4, which shows that change from actual data for 2000 to the notional projection for 2010. While donated supplies are still an important component, procurements using government funds (whether revenue funds or World Bank Loans) are becoming much more important, as are procurements by the SMC, using revenues generated by sales to users.

**Figure 4**.
*Financing Source for Contraceptives*



**The Bottom Line:** It is clear that the GOB must use GOB funds and World Bank credits to expand its involvement in the procurement of contraceptives. Donor funds will not be sufficient to meet demand under any future scenario of program growth. There are strategies for shifting some of the cost burden from the public sector to clients, but these strategies must be cautiously tested and, in any case, cannot completely close the gap.

# Contraceptive Security Condition 3

## Have the Technical Capability to Procure Contraceptives on a Timely Basis

## Recent Procurement of Contraceptives

Until recently, almost all the contraceptive commodities used in Bangladesh were donated. With the advent of the Health and Population Sector Program, beginning in June 1998, the family planning program shifted from donated supplies to a source mix that required GOB procurement of the majority of contraceptives using World Bank loan credits. The Programme Implementation Plan called for more than $180 million dollars in procurement of goods for reproductive health. It must be stated that the GOB, donors, and the World Bank were not prepared for the difficulties inherent in this radical change of procurement mechanisms.

The following discussion is not a criticism of the shift to a sector-wide approach, with contraceptives being funded through "basket funding." There are many reasons for such a change, including the financial forecasts discussed earlier. Prior to 1998, there were more than 25 donors funding more than 100 different programs (e.g., EPI, family planning, and child survival), simultaneously. As part of the health sector reform effort, it was decided that the World Bank and other partners would develop a donor assistance package that fell under a single umbrella. The rationale for this approach was that it would allow the GOB to integrate multiple donor inputs in pursuit of a single sector strategy without having to manage many smaller efforts. Many of the donors agreed to pool some of their resources and add them to the "basket" with the World Bank loan (Friedman N.d.).

Procurement of pharmaceuticals (and contraceptives) is difficult and time consuming under the combination of GOB and World Bank guidelines. Some difficulties are related to the exacting requirements, complicated documents, and confusing repetition in the proformas published by the World Bank. Others relate to the necessity of integrating traditional GOB procedures with World Bank requirements. For health sector goods, the Bank makes additional demands about specifications and qualification requirements (largely related to safety and quality issues), which do not apply to other commodities.

The Bank's *Guidelines for Procurement Under IBRD Loans and IDA Credits* require that procurements be open to *all* bidders, even those whose products were not registered in country—a process known as "international competitive bidding." In addition to increasing the number of potential bidders, this mechanism requires that the successful bidder register the products *after* contract award. The Bank suggests a "fast-track" registration, but it is impossible to ensure that the registration process will not cause additional delays in an already lengthy process.

This and other issues are not unique to Bangladesh. In May 2000, the World Bank Group issued a technical note (World Bank 2000) on the procurement of health sector goods. The note was revised slightly in February 2001. Although the technical note does not alter the Bank's standard procurement guidelines, or the relevant standard bidding documents, it does provide important background information to Bank project staff and borrowers about complex problems and issues inherent in the procurement of contraceptives, pharmaceuticals, and vaccines. It mentions a number of other acceptable mechanisms, in addition to international competitive bidding, and makes recommendations on which method is likely to be most suited to each situation. Finally, to ensure the

procurement of safe, effective products at a reasonable price, it suggests that these issues should be properly addressed during project design and appraisal (i.e., before the Development Credit Agreement is drafted).

The issues are—

- limited international bidding
- national competitive bidding
- shopping (national and international)
- direct contracting
- procurement from UN agencies
- use of procurement agents (World Bank 2000).

These alternate mechanisms—particularly limited international bidding when responses are limited to pre-qualified bidders—should enable the GOB to greatly streamline the international procurement of contraceptives.

This good news notwithstanding, expertise in Bangladesh in procuring health sector goods under World Bank guidelines has been—and still is—scarce. Such experience was almost non-existent inside the MOH. While expertise in general, the World Bank procurement existed in the private sector, but the specialized skills required for pharmaceutical procurement did not. Moreover, the Bank's Bangladesh office did not have sufficient staff to review the large number of procurement packages required under the HPSP. Inadequate resources within the GOB to provide the intensive guidance and shepherding of applications for approval (e.g., no objection determinations) resulted in additional in-country delays (Friedman N.d.). These issues—and the minimum time requirement of at least 12 months for international competitive procurement—have not been fully appreciated, leading to unrealistic expectations about timelines on the part of important stakeholders and the projects that rely on loan-procured commodities.

To avoid critical shortages during HPSP's first transition year, UNFPA was given a one-year contract to procure contraceptives using their own procurement rules. During this period, the GOB was supposed to retain a private procurement agent (PPA) that would subsequently procure commodities using IDA procedures. However, when the year ended (June 1999), the PPA had not been selected. For the following two years, UNFPA and other donors procured emergency shipments. During this time there were constant technical inputs from USAID, UNFPA, the World Bank, and FPLM/Dhaka to regularize the procurement process and establish a functional Procurement Monitoring and Coordination Cell. USAID has funded three full-time Bangladeshi procurement consultants, as well as intensive short-term technical assistance from international pharmaceutical procurement experts. In addition to the USAID-funded consultants, KfW is now funding a full-time expatriate consultant in procurement. After great difficulty, the first large successful procurement was completed in September 2001.

Thus, the GOB has made progress in procuring contraceptives, with considerable donor inputs for technical assistance. This effort will become increasingly efficient as they gain experience, successful procurements are made, and the World Bank offices—both in Dhaka and Washington—gain confidence in the GOB's capabilities in pharmaceutical procurement. However, the GOB will need to

focus attention on timely procurement and receipt of commodities, indefinitely, and external donor assistance will probably need to continue well into the future.

**The Bottom Line:** The Government of Bangladesh *and* the donors will need to focus additional resources to ensure the efficiency and timeliness of procurements:

- Build a fully staffed and equipped procurement unit within the MOHFW to take charge of all health sector procurement, including contraceptives, pharmaceuticals, medical equipment, and services.
- Provide on-going training to the staff of this unit in procuring health-sector goods using World Bank guidelines—both formal external short-term training and on-the-job training with private-sector Bangladeshi experts and external consultants.
- Develop a system for careful archiving and indexing of successful bid documents and product specifications (both electronic and hard copy).
- Develop a monitoring system for all procurements so interested parties can know and understand the status of procurement packages.
- Streamline and formalize the approval process within the MOHFW to improve efficiency.
- During the negotiations for the NHPSP, bring in an external consultant familiar with health sector procurement to assist with the design elements related to procurement.

## Side Issue: Potential for Local Manufacture

Local manufacture is frequently discussed, particularly the manufacture of condoms. Several developing countries now manufacture condoms, including countries in the region, for example, India, Malaysia, Indonesia, Vietnam, Thailand, and China.

However, this idea needs to be approached with some caution. In 1995, Programs for Appropriate Technology for Health (PATH) prepared a paper for the World Bank, investigating the potential for manufacture of contraceptives in developing countries (PATH 1995). Although the paper is dated, many of the cautions cited in the paper remain valid:

- "A critical aspect of examining local production feasibility is a careful assessment of the viability of commercial sales based on current and future markets trends."
- "Evidence shows that the capacities of some local plants established during the past decade have been underused. For example, a condom plant in Indonesia currently is operating at less than capacity because the government is purchasing lower-priced condoms on the international market…"
- "The potential for export may be very limited. The international condom market, for example, is filled with established manufacturers that can produce condoms meeting international standards at low cost. Many local plants simply cannot compete with other suppliers in the international market, even when favored with a 15 percent price differential, which UN agencies, for example, allow for the purchase of goods from developing countries."

- "Although for countries interested in local production it is usually assumed that most of a local plant's capacity would be purchased by the government, the potential for success is strongest where there is a developed commercial sector so that a plant may market its products to both the public and private sector."

More recent information about condom production resulted from a visit of the procurement officer for USAID to Asian condom producers (C. Hawkins and S. Hawkins 2002).

The findings include—

- There is ample capacity among the world's condom manufacturers to handle existing and projected demand. Many plants are now being designed to allow significant flexibility in production to adjust to increases and decreases in demand.

- Widespread international competition has caused declining prices (currently U.S.$.02 to U.S.$.025 per piece for bulk purchases) and very narrow profit margins.

- There is a widespread opinion that because a condom is a simple product, manufacture is also simple. However, latex is a natural substance requiring specialized knowledge and experience. There is still a significant amount of "art," as well as science, required to produce a quality product. Even experienced firms with good equipment, in developed and developing countries, periodically have quality failures.

The PATH paper concludes—

"In conclusion, the feasibility of local contraceptive manufacturing must be considered very carefully, with a thorough assessment of the financial and technical feasibility of the potential manufacturer, as well as an assessment of its potential for sustainability, given market conditions and possible buyers of the product. As the international market has become more competitive, there is less of an opportunity for local manufacturers to export products and gain access to foreign currency."

Another issue is the need to maintain competition in government and private procurements. Experience in other countries (such as Mexico) has shown that requiring the government to purchase from a local manufacturer has led to significantly higher prices. It is important that the government make best use of revenue funds and external loans in its purchases. Similarly, private vendors and the SMC must also obtain the best price if they are to best serve the portion of population who can afford to pay. A government "guarantee" of purchase from a local manufacturer would not be allowed under World Bank Guidelines (however, a 15 percent price preference would be allowed) and would undermine competition, probably leading to higher prices and lower quality.

Despite these cautions, there is private-sector production of oral contraceptives in Bangladesh. Organon is currently producing two brands, Ovostat and Marvelon, for the "pure" private sector, carrying out the formulation, granulation, tableting, and packaging in-country. They produce approximately 3 million cycles per year, which only covers a very small portion of the use in Bangladesh, but it does have additional capacity to produce much more. The company investigated selling to the government, but costs are such that they could not compete with the highly competitive international market (Chowdhury 2002).

**The Bottom Line:** The current international market for large quantities of contraceptives is *highly* competitive, with prices, in general, having declined over the past years. The decision to establish local manufacture should be a business decision (as cited in the earlier discussion about Organon's niche market), not a politically or donor-driven decision. While encouragement of business investment for local manufacure should continue, preliminary review suggests that a decision based on business criteria would not favor expenditure of government or donor resources to begin additional local production.

# Contraceptive Security Condition 4

## Ensure Reliable Delivery and Availability to the End Customer

The strengths of the GOB's contraceptive logistics management information system are described earlier. As part of the development of the LMIS and strengthening the in-country distribution system, a massive training campaign was carried out—more than 11,500 individuals nationwide were trained in contraceptive logistics management—resulting in a successful contraceptive logistics system. The system demonstrated its robustness during the crisis of July and August 2001, when (because of the procurement problems described earlier) the national stock level for Depo-Provera fell to 2.3 months of supply. (The appropriate level for all tiers of the system is 12 months). The system responded by judiciously pushing limited quantities to those SDPs most in need. Thanks to the efforts of a well-trained cadre of supply chain managers from top to bottom of the supply chain, stockouts at the lowest level of the service delivery system were limited, and the needs of most clients' were met.

However, massive donor effort, particularly on the part of USAID, has gone into developing and sustaining this system. USAID funds have been used to build 210 thana stores, and other donors' funds have helped construct an additional 46 stores. The warehouse that receives all commodities from the port in Chittagong was built with Asian Development Bank (ADB) funding. The FPLM project (now DELIVER) has had a large presence in the system for the past 10 years, and it remains active in maintaining the LMIS, developing curricula and conducting training, procurement, and overall monitoring of the functioning of the system. Had FPLM/DELIVER, USAID, and other key development partners not been constantly sounding alarms about the national supply situation during the procurement delays discussed above, widespread stockouts would have occurred.

The supply chain now has another threat. Collaborating with the World Bank and other agencies, the MOHFW is implementing large-scale health and population sector reforms. One contemplated reform is unification of the now separate health and family planning logistics systems. A major difficulty to be overcome is that the drug and family planning distribution systems are very different in both structure and operation. Since contraceptives have in the past been funded by donors in quantities sufficient for full supply, the family planning distribution system ensures continuous product availability at service delivery points through maximum-minimum (max-min) inventory control strategies. Drugs, however, are not in full supply, so the health distribution system uses the much simpler mechanism of rationing using population-based allocations.

This difference is important because in the unified system the cadre of health storekeepers should retain responsibility for drugs and medical supplies and take on responsibility for contraceptives. A very important problem lies in the fact that the health storekeepers have no experience with the max-min strategy used for contraceptives. This could negatively affect product availability.

There are also general contextual problems that make logistics unification difficult and potentially threatening to contraceptive security.

These include—

- A degree of antipathy among health and family planning officers that makes working on the same logistics team difficult.

- Incomplete plans for logistics system unification—the MOHFW has started unification at the local level without clear plans for unification at the district, regional, and national levels.

- Ineffective communications by the MOHFW about what changes are intended and how they are to be carried out.

These problems have created confusion about the future of public sector contraceptive distribution. The agencies that have invested in Bangladesh's contraceptive distribution system and workers who operate it are conscious of the successes achieved and genuinely anxious about the future.

If the systems unify, however, there will also be an opportunity to focus attention on increasing the efficiency of the logistics system. Efficiency can be gained through several technical changes that, to be most effective, must all take place simultaneously. These changes could result in significant financial savings by reducing the quantities of contraceptives held in inventory, as well as reducing storage and handling costs. Recommendations made to the GOB under the FPLM project that remain to be implemented include—

- *Development of a modern Central Distribution Facility (CDF):* As noted earlier, the quantity of contraceptives managed by the system will double by 2015. Similar increases in medical equipment and pharmaceuticals will probably occur, although no data are available on which to base requirements estimates. Both of the current central warehouses are already at or beyond capacity. Furthermore, both existing facilities are located in crowded parts of the city, making access and handling of large quantities difficult. A larger central facility, designed to world performance standards and located so that it is capable of directly handling containers, needs to be constructed. Including allocation or purchasing of the site, the design and construction of such a facility will take years (Chesley and Andrew 1997).

- *Rationalization of tiers:* The current logistics system in Bangladesh mirrors designs of a century ago, when transportation, communication, and information management was rudimentary, at best. It sends commodities down through a series of tiers that follow geopolitical boundaries. Modern distribution systems have far fewer tiers, instead relying on an efficient CDF to distribute to numerous facilities using a mix of efficient transportation modes. In Bangladesh, rationalizing tiers is a politically difficult decision, because it involves loss of certain powers by the existing intermediate tiers and a reassignment of staff (Barone 1997).

- *Use of private transport:* Outsourcing in-country distribution to commercial carriers is currently being piloted in Bangladesh. This strategy may prove more efficient than a dedicated government-owned system, both due to economies of scale and the different cost structure of non-dedicated transport (Pearson 1997). Difficulties in bringing this activity up to a level that would show significant cost savings have resulted from the lack of sufficient budget committed by the GOB.

**The Bottom Line:** The Government of Bangladesh needs to continue to focus attention on improvements in logistics management, and to take care that unification does not result in the loss of the current effective distribution system. Continuing technical development of the in-country supply chain is needed, including training and performance-improvement initiatives aimed at all cadres of staff. Potentially significant progress toward contraceptive security may be attained through improvements in distribution system efficiency, such as reducing pipeline length and the associated costs of storage, handling, and inventory levels.

# Questions for Consideration

To serve the needs of the people of Bangladesh and to reach the fertility objectives of the GOB, it is essential to increase the focus on contraceptive security. All the stakeholders involved in family planning have a role. Some of the questions that should be answered include the following:

- *Is this the time for the GOB to issue a new population policy?* Bangladesh was one of the first countries to issue a cogent, endorsed population policy, including focused and practical guidelines for implementation. However, this document was published in 1976, and the goals set for 1985 have not been met. Now, 25 years later, the government is, appropriately, developing a new policy that includes plans for contraceptive security.

- *Does public and political interest in family planning need to be reinvigorated?* A key to Bangladesh's success in family planning was public recognition of the deleterious effects of rapid population growth and the ready acceptance of family planning. New efforts may need to be made to bring this issue back into the public consciousness.

- *Should the wisdom and long-term feasibility of dependence on World Bank loans for an essential preventive health commodity like contraceptives be questioned?* This dependence may be reasonable (or unavoidable) but it should not be accepted without a focused exploration of Bangladesh's political and fiscal processes to identify prospects for increasing GOB ownership and budgetary support of contraceptives for the public sector health system.

- *Should the status quo regarding the method mix be accepted?* The method mix has steadily shifted during the past decade from more effective, long-term methods to less effective, short-term, and traditional methods. This has quality of care, cost, and demographic implications, as described earlier. Discussion of this question will lead to a number of subsidiary questions, including, *What can be done to ensure that clients have informed choice of methods? Should the VSC program be reinvigorated through BCC and increased access to services? Should there be more programmatic emphasis on IUDs and implants? Should the public program stop supplying condoms, or even pills, and leave those methods to the SMC?*

- *How should NGOs and the SMC be used to segment the market?* As Bangladesh develops economically, a larger segment of the population will be able to pay for contraceptives at market prices. Can NGOs and the SMC offer commodities at both subsidized and market prices to reduce the quantities of commodities that must be donated or procured using public funds?

- *How should the donors change their modes of operating to further support availability of commodities?* Contraceptive security is a long-term effort. However, donors often plan only for the short-term. In the past, commodities have frequently been donated on a year-by-year basis, leading to contraceptive *insecurity*, not contraceptive security.

- *Is this the time for the GOB to make hard decisions about improving the efficiency of the supply chain?* Studies have recommended a modern Central Distribution Facility (CDF), rationalization of the number of tiers in the system, and use of private carriers, but these recommendations have not been implemented. The need for such changes will become even more desperate as the volume of commodities handled doubles over the next 15 years.

- *How can donors work together with the GOB to ensure continued and improved functioning of the supply chain?* The successful delivery of commodities to the thousands of clinics and health

workers in Bangladesh has been carried out with significant assistance from donors in many technical areas, including procurement, LMIS, warehouse management, logistics training, and system monitoring.

- Emphasis needs to be placed on the GOB taking more ownership of this system, particularly as unification of family planning and health efforts continue as a result of health sector reform.

# Next Steps: Planning to Address Contraceptive Security

This paper began by asserting that the issue of contraceptive security results from the success of the family planning programs of Bangladesh, which have increased voluntary use of contraception to such a high level that enormous quantities of commodities are now needed. Now is the time to develop concrete plans to address contraceptive security. Failure to secure the reliable, long-term availability of contraceptives would have dire consequences, for individual lives and for the nation.

## Strategic Planning

How do policies, attitudes, systems, and behaviors need to change to secure contraceptives for Bangladesh's future? This paper presents some ideas. The next step is a plan that specifies precise activities and measurable change. The responsibility for devising workable plans to ensure contraceptive security belongs to the GOB, but parties to those plans will be numerous and diverse. Such a complex issue requires an array of stakeholders to participate in a focused, coordinated effort. Various ministries, NGOs, the SMC, commercial sector, donors, advocacy organizations, and technical assistance agencies will all play a role in securing contraceptive availability. A high degree of collaboration will be required, and plans that address different components or aspects of the issue also need to be coordinated. Creating these plans must be an immediate priority, as is establishing the GOB's role in leading, coordinating, and monitoring the contraceptive security effort.

## Assessment

A structured, multi-layered, and detailed analysis must underpin the specific policy and programmatic changes required to achieve contraceptive security. An interdisciplinary group led by the DELIVER project and UNFPA is developing a Strategic Pathway for Reproductive Health Commodity Security (SPARHCS) for reproductive health commodity security (being field tested in May–June 2002) that examines six different components of commodity security: policy, logistics, demand, service delivery, human and organizational capacity, and financing. The SPARHCS is designed to facilitate a strategic approach to commodity security and to set the stage for the coordination of external inputs (financing, commodities, and technical assistance) to execute the strategies. Bangladesh can and should apply the SPARHCS as a first step in creating a comprehensive strategy.

## Policy Analysis

As the earlier discussion shows, many policy changes will be required to make contraceptive security a reality. Technical assistance in policy analysis using Harvard University's PolicyMaker software can help isolate the most feasible approaches for effecting these policy changes. The software provides an organized approach to detailing policy content; identifying players, opportunities, and obstacles; designing strategies; and evaluating their impact. A PolicyMaker review would be equally useful whether the desired changes relate to fostering a different method mix, removing barriers to implementation of improvements in efficiency of the supply chain, designing a coordinated approach to market segmentation, or securing GOB financing for contraceptives.

DELIVER/Washington staff are working with DELIVER/Dhaka staff and Harvard's International Health Systems Group to develop a proposed timeline and implementation plan for identifying, training, and supporting a small group of local stakeholders in undertaking this important analysis.

## Advocacy

The MOHFW, with DELIVER, UNFPA, EngenderHealth, JHU, and BCCP, plans to hold a major meeting in June 2002 to present the issues in this paper to a wide audience of key stakeholders. This paper and the collateral materials developed for the meeting, including a video, are part of a yearlong sequence of awareness-raising activities aimed at stimulating policymakers and the public's understanding of the importance of securing supplies. The more than 69 organizations at the global meeting on contraceptive security at Istanbul produced a declaration that should also be useful for continuing advocacy with policymakers in Bangladesh health and family planning organizations in the public, private, and social marketing sectors.

## Regional Leadership

As noted early in this paper, contraceptive security is both a global and a local problem. Bangladesh is a world leader on this issue in many areas (e.g., sound forecasting, World Bank procurement, world-class LMIS). The country may also learn from other countries' approaches to the issue (e.g., market segmentation, streamlined supply chains).

Bangladesh would be an excellent site for a regional conference on contraceptive security. This major event could be built around the need to develop country-specific strategic and action plans. It could be timed for later in 2002, after the above analyses are complete but before strategic plans are finalized. Other countries, particularly Indonesia, Nepal, and Philippines, could learn from the Bangladesh process and share their own achievements and challenges at such a meeting.

## Donor Coordination

It should be clear from the earlier discussion that different donors have different organizational priorities, planning horizons, funding cycles, and procurement regulations. Concerted efforts at multiple levels of the GOB can energize regular donor coordination meetings, based on sharing accurate current information and focusing all donors on the contraceptive security imperative.

Donor coordination meetings have been used quite successfully in the past to address imminent threats to contraceptive supply. It is now necessary to lengthen the time frame of analysis in those meetings and to explore transparently, and in more detail, the ways in which donors' divergent commodity programs hamper Bangladesh's ability to plan for contraceptive security.

## Collaboration

DELIVER and other USAID CAs working in Bangladesh need to collaborate in assisting the GOB in achieving its contraceptive security objectives. Contraceptive security is not simply a logistics issue, neither is it simply a policy issue nor a service delivery issue. As a funder of a wide range of technical assistance, USAID should devise its own plan to ensure that its technical assistance is well coordinated and targeted at the long-term, incremental achievement of contraceptive security in Bangladesh.

Clearly, many parties need to come together to understand the problems inherent in achieving contraceptive security, and they need to commit to a common vision of contraceptive availability. There are many questions to be answered about what that common vision might be. This paper raises a number of issues and puts forth a call to action on several fronts. The Government of Bangladesh and its funding and technical assistance partners have demonstrated their commitment to building and improving a world-renowned voluntary family planning program. How, now, will we all demonstrate our commitment to securing long-term availability of supplies to make sure those services are available to future generations of Bangladeshi women and men?

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# Endnotes

[1] First meeting of the Common Assessment Framework Working Group (USAID, UNFPA, CDC, MSH, PATH, and JSI). 8 February 2001.