on the Human Environment held in Stockholm in 1972), maintains that the Law of the Sea conference "will determine how some 70 per cent of the earth's surface will be cared for, exploited and managed--which may have a more profound effect on the future security and well being of the human species than any other matter now before the world community....But most participants of the conference seem scarcely interested in or aware of the issues at stake."

The industrialized countries, including the Soviet Union, have invested heavily in the development or purchase of technology for the recovery of mineral nodules from the deep seabed. The nodules contain a range of rare and expensive metals such as copper and manganese. They are formed faster than man's present ability to gather them. An unlimited supply of such commodities would have a huge impact on world trade. Among other things it could ruin the fragile economies of several mineral-exporting developing countries such as Zambia, Botswana, and Zaire.

But the developing countries hold a numerical superiority at the conference table. They could thus delay, for the time being, the deep sea mining operations by withholding agreement to the exploitation of mankind's "common heritage" unless their interests are adequately safeguarded. In the absence of such an international agreement any commercial deep sea mining operation may well amount to an act of piracy--despite the current legislative moves in the United States and West Germany for the licensing of domestic corporations for work on the high seas.

Yet the corresponding national expropriation of fishing zones by rich and poor alike--doubling the area of the combined jurisdiction of coastal states and including the best fishing grounds, which supply about 90 per cent of the global catch--has already undermined the rule of international law on the high seas. It may well point the way toward unilateral action by the private consortia of deep sea mining companies.

The next negotiating session will concern the conflict of interests between the rich countries that want unhindered access to the deep sea mineral resources and the poor world that wants to create a monopoly of mining rights vested in an international authority which it would control by a majority vote. All parties want an agreement. They are likely to welcome any opportunity for the opposing interests to come together without endangering their negotiating positions.

Such an opportunity has been created by the U.N.'s Food and Agriculture Organization in Rome in calling for aid for the poor coastal countries that cannot manage their newly acquired marine wealth. But it may also lead to an opportunity for the deep sea miners to take the law into their own hands.

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EXCURSUS III

WILLIAM J. MONAHAN & MARY R. BASSETT
THE CATHOLIC CHURCH & THE POPULATION EXPLOSION

It is commonly claimed that the Roman Catholic Church's ban on birth control has contributed to the current world population problem. But population data show that Catholics are a minority of the world population and comprise a particularly small part of the developing nations, the major source of world popula-
tion growth. Hence, the Catholic Church's ban on contraception could not have contributed significantly to the present size and growth rate of the world population. Clarity on these points could aid scholarly and practical efforts to deal with the world population problem.

Catholics are a minority of the world's population, making up some 17 per cent of the total. No matter how diligently they might observe the Church's prohibition against birth control, they could hardly constitute a major source of world population growth. Second, the developing nations are the major source of population growth today. Asia, Africa, and Latin America constitute almost three-quarters of the world's population and are growing at rates over twice as high as the developed nations. Third, Catholics are a small part of the developing nations, amounting to about 12 per cent of their total populations. The Catholic Church could drop its opposition to birth control tomorrow without an appreciable effect on the size or growth rate of the world population.

With the developed nations growing at modest annual rates of 0.8 per cent or 0.9 per cent, it is obvious that Catholics are not causing high population growth rates in those areas. With their fellow citizens in industrialized countries, Catholics live in the midst of factors that contribute to the adoption of some form of birth control and family planning. These factors are mass education and literacy, availability of information and of contemporary birth control measures, plus the desire and possibility of maintaining a comfortable standard of living.

As for Asia, the population influence of the Catholic Church is minimal. The Philippines is the only nation of Asia with a predominantly (about 75 per cent) Catholic population. In a nation of 42.5 million, annual population growth rates are high: 2.61 per cent registered and 4.38 per cent estimated. However, the 32 million Catholics of the Philippines comprise only 1.4 per cent of the total Asian population of 2,355 billion. The population of India is less than 2 per cent Catholic, and estimates of the number of Catholics in China are some 8 million, or less than 1 per cent.

Turning to Africa, we find a population of 424 million people growing at an annual rate of 2.6 per cent. The Catholic Church claims 46 million members in Africa, some 10.8 per cent of the total population. Such a limited proportion of the population could not significantly alter the growth rate of the whole population. A high growth rate among Catholics might, of course, eventually expand their influence on population growth rates. For the present, however, we cannot attribute to Catholics a significant influence on the rate of population growth.

Latin America seemingly offers abundant evidence for the argument that the Catholic Church constitutes a major obstacle to the introduction of birth control programs. Operational definitions of Catholic religious affiliation in Latin America vary, as do estimates of the proportion of the population that meets those definitions. An accepted working estimate is 81 per cent Catholic in a population of 342 million people. The approximately 279 million Catholics of Latin America form the largest single Catholic population grouping in the world. Although birth, death, and growth rates, as well as total size of population, vary sharply among Latin American nations, the area as a whole has a 2.7 per cent rate of population increase per year, the highest of the three major developing areas.

TO ASSESS THE IMPACT of the Church's prohibition of contraception, several factors must be taken into account. First, from a practical point of view, the programmatic elements for the widespread dissemination of birth control information and devices have not been present until fairly recently in Latin America. J. Mayone Stycos, a sociological analyst of population issues in Latin America, has stated that birth control programs took hold in Latin America on a limited and largely externally-supported basis in the 1960's and that they would require close attention in the Seventies in order to duplicate the initial growth realized in the Sixties. In a larger context Paul Ehrlich states that "no underdeveloped country had an official family planning'
policy prior to 1960," with the exception of India. Demographer Donald J. Bogue observes that "Since 1960 there has been a worldwide movement to establish nationwide family planning programs in the developing nations." In short, with or without the Catholic Church, birth control programs simply did not emerge on a significant basis in the developing areas until the Sixties, including Latin America. If birth control has arrived late in other parts of the world, there is a solid reason to attribute its late arrival in Latin America to the problems of underdevelopment rather than to the institutional influence of the Catholic Church.

From the perspective of the Catholic Church, a serious shortage of priests hampers its work in Latin America. We estimate a ratio of one priest per 5,538 Catholics in Latin America, as compared to one priest per 830 Catholics in the United States. Against such odds effective education of the people in the moral aspects of birth control is not likely. Priests form the interface between doctrine and people, as well as between the hierarchy and the people. Any assumptions about the influence of the Church must deal with the fact that the clergy are the major channels of that influence. Given the late introduction of birth control programs in an area as vast and populous as Latin America, and given the limited number of priests available to instruct the people, we cannot conclude that the Church's opposition to birth control is being observed; more likely, birth control is being ignored.

It is said that the Catholic hierarchy intervenes effectively against the introduction of public and private birth control programs. This argument appears in many of the social science treatments of population problems in Latin America, with case examples to support it. Less frequently noted are the many anticlerical governments in Latin American history. Such governments are not likely to have been highly receptive to ecclesiastical advice on population policies, were there any.

AS WITH MOST OTHER SOCIAL PROBLEMS, many causes contribute to population growth in Latin America. Three are especially important: education, economic conditions, and cultural elements. Where a large proportion of the population has little or no formal education and has few opportunities for work in which rudimentary educational skills can be exercised, one would not expect to find awareness of, much less interest in, technologically developed measures of birth control and family planning. Procreation and the bearing of children have been among mankind's rather basic undertakings for some while. They are undertaken without the benefit of formal education, and are not easily altered without educational effort.

Many Latin American women no doubt want to limit the number of children they bear. But the context of a semi-industrialized society does not provide them or their spouses with sufficient information, resources, or consumer motivation to practice family planning. As modern experience has demonstrated, a preindustrial way of life renders family planning a far more alien phenomenon than any religious condemnation could accomplish.

Cultural definitions of sex roles also contribute to population growth in Latin America: for example, the macho complex. This exaggerated vision of the traditional masculine attributes notably includes the ability to sire children and obviously forms an obstacle to birth control. Cultural definitions of man and woman, family and children, parent and kin, all combine in a complex set of beliefs, attitudes, and expectations. Planning offspring does not occupy a significant part of this cultural package. Within the educational, economic, and cultural context of Latin America it seems reasonable to conclude that the Church's prohibition of birth control is but one factor among many others producing a high rate of population growth.

In addition, Latin America has a population explosion because various countries have reduced mortality rates close to the levels of industrialized nations, while birth rates remain high. Finally, Latin American nations are not decisive in world population growth, since Latin America constitutes only 7 per cent of the world population.
In sum, the developing nations of Asia, Africa, and Latin America contribute most to the current growth of the human population. The Catholic Church's prohibition of birth control does not qualify as a significant causal factor in these high rates of growth. The Roman Catholic Church is absent from China, scarcely present in Southeast Asia, and present at a low level, proportionately, in Africa.

In Latin America the influence of the Church on population growth rates is questionable. Thus the belief that the Catholic Church could limit world population growth by a change in its birth control policy is simply erroneous.

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UP-DATE

ARMANDO VALLADARES, the Cuban poet and political prisoner whose poem "Boniat Prison: Tale of a Massacre" was featured in Worldview (October, 1977), is now incommunicado and without medical treatment owing to the publication of a book of his poems in Paris. The book is dedicated to all his "brothers imprisoned in Cuba."

Valladares's poetry has been translated into French by Pierre Golendorf, a former member of the French Communist party who spent some years in a Cuban political prison. The volume is two hundred pages long and contains an introduction by Golendorf and a conclusion by the Soviet dissident Leonid Ploukhch, who relates how the Cuban gulag has its roots in the Soviet experience. According to Ploukhch, Cuba is a new gulag, where the "melody of the International drowns the cries of the Cubans being tortured."

The Valladares case has been adopted by Amnesty International and has become a symbol of the harsh realities of Cuban prison life despite Castro's recent promises to release some prisoners.

Paralyzed from the waist down, the result of a starvation punishment designed to force Valladares to enroll in the government's "reeducation plan," he was in 1974 "one of 44 prisoners deprived of food for seven weeks....He was one of six prisoners permanently invalidated by this experience" (The Times of London, June 12, 1978).

Valladares spent more than seven years without visits. Last fall he was transferred to a hospital and began to receive some medical care. Sometime in March, after publication of his book, he was moved from the hospital. As of this writing (mid-April), his whereabouts are unknown.

In the book the allusions to General Pinochet, Idi Amin, and the shah of Iran put the Cuban experience in a context hardly popular among progressives the world over. "If Armando Valladares was Chilean, Argentinian, Uruguayan, Iranian or Ugandan," points out Golendorf, "no one would be surprised reading the tortures he witnessed."

Below, one of Valladares's poems, dedicated "To the thousands of men, women and children who have died at sea trying to flee from communism." (Translation by Raquel Puig Zaldivar.)

A MINUTE OF SALT...

(On Minuto de Sal...)

A minute of salt for silence of those who couldn't return to dust.

Jehova must have forgotten the waters of those who died amidst palpitating waves with their mouths overflowing with seaweed and eyes devoured by the fish of those that were anchors of tumescent flesh or modern Jonases dismembered in sharks' wombs.

One minute of salt for the silence of those who were dissolved without name or memory: those that sank when they sought the light and the word; those who were swept by lead dreaming of freedom in their rafts; those who lack gravestones and tombs and crosses those who lie God knows where because there are no tombs in the water...