THE SUBTERRANEAN CHILD LABOUR FORCE: SUBCONTRACTED HOME BASED MANUFACTURING IN ASIA

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– November 2002 –

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Readers citing this document are asked to use the following form of words:

Mehrotra, Santosh and Mario Biggeri (2002), "The Subterranean Child Labour Force: Subcontracted Home Based Manufacturing in Asia". Innocenti Working Paper No. 96. Florence, UNICEF Innocenti Research Centre.

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Abstract

Child labour is widespread in home based manufacturing activities in the informal sector in most developing countries. This form of child labour will not attract the penal provisions of a country's laws banning child labour. This paper draws on surveys carried out in five Asian countries – two low-income (India, Pakistan) and three middle-income countries (Indonesia, Philippines, Thailand) – where production of manufactured goods is subcontracted to home based workers widely. It examines the incidence of child work in such households, the child's schooling, reasons why children are working, their work conditions, their health, and gender issues. Based on focus group discussions with children, it also attempts to articulate the voices of children working. A companion paper examines the social protection needs of the families engaged in such work. Multinomial logit analysis is used to understand the determinants of child work or study status, and Heckman's selection model is used to explore the factors affecting hours of child work. Policy implications are drawn accordingly.

Introduction

The literature on child labour burgeoned in the last decade of the 20th century, as negotiations for the Uruguay Round of trade were closing in the early 1990s. International trade negotiators brought child labour on to the trade agenda as a 'new issue', linking labour standards to further market access in industrialized countries. The international funding of research for child labour expanded. International organizations created and expanded new programmes for addressing the data requirements in the area. Position papers were hurriedly prepared by international organizations, and evaluations of current programme activities were conducted to determine whether child labour needs were being addressed. Programmes and projects to address the problem multiplied, as did funds from bilateral and multilateral agencies.

Too often in the child labour literature that has grown in the aftermath of this new concern for a rather old problem, the tendency is to address the issue as a stand-alone problem. The link was usually drawn to general poverty as a cause and a consequence of child labour. However, before long the discourse descended into ever greater refinement of issues of child labour itself, with scant attention to the forces at work in the macro-economy which characterised the expansion of the informal sector, and within it, the emergence of new forms of child work in the development process. Most child labour in developing countries is in the informal economy in household enterprises, either working for the family (of which the child is a member) as unpaid family labour, or as a paid employee outside the home. The focus in this paper is

on the phenomenon of child work within home based work (hbw) in manufacturing in the informal sector.

Home based work offers several advantages to families. Above all, it offers employment and hence an opportunity to enhance their income; it also saves workers travel time and they can do other activities in addition. These usually include another economic activity (e.g. farming in rural areas or periodic wage work), and for women it normally implies the performance of their reproductive role.[1] Subcontracting by firms to home based workers offers employers several advantages as well. First, they can recruit from a much larger area than would be the case if hiring was limited to areas that are within commuting distance. Second, they can hire workers in accordance with variations in demand. Third, they minimise the risk of unionisation.[2] Work done by home workers may also be less costly to the employers, since costs such as rent, power, tools, and so on, are the responsibility of the workers, not the employers. In brief, the challenge for policy is to minimise the vulnerability of workers in hbw, while supporting the elements that ensure efficiency in production. In other words, the challenge is to limit the trade off between efficiency and equity.

Child labour is most widespread as part of the family farm in developing country agriculture. It is also widespread in the services and manufacturing activities in the informal sector in most developing countries. Home based work in manufacturing can easily lead to the employment of child labour especially when the head of the household procures the raw materials from the contractor or the employer and performs the work at his home with family labour. There are two prima facie reasons to believe that such work may be on the increase. First this form of child labour will not attract the penal provisions of a country's laws banning child labour. Both India and Pakistan instituted legislation banning child labour within the last couple of decades, but home based work is not covered by such legislation. Second, one possible result of the increasing national and international attention to child labour is to drive it underground i.e. away from the visible factories or workshops to home based economic activity.[3]

Where a migrant labour force moves into urban areas, children – who were earlier working on farms as family labour – now begin to participate with their parents in such informal sector activities in manufacturing. Manufacturing activities could also be subcontracted to households still based in

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1 These advantages can mask severe disadvantages. In conditions of excess supply of labour, piece-rates (the normal form of payment in hbw) can be low, and thus home workers share in the value chain extremely low, and work conditions can be exploitative.

2 This lack of unionisation can also be an important source of the vulnerability of home workers' families; it is an issue we discuss later.

3 For example, over the late 1990s there have been newspaper reports in India that the bangle-making industry in Firozabad, Uttar Pradesh, has seen a shift of child work from the small workshop to home based work.

rural areas. Where the returns to schooling are likely to be high, as in a rapidly growing economy, there is less of a tendency for such informal sector manufacturing work, whether home based or not, to be undertaken by children. Under such circumstances, parents prefer their children to go to school. However, in economies – such as India and Pakistan – where economic growth has been less rapid, the returns to school are perceived to be lower, and the opportunity cost of schooling perceived to be higher, the incidence of participation of children in such work would tend to be higher. Even in rapidly growing economies (e.g. in south east Asia), school-going children are engaged in home based manufacturing, together with their family, after schools hours.[4]

Data on the scope and magnitude of child labour is quite limited in most countries,[5] and information about the scale of home based child work is even scarcer. This makes home based productive activities of women, and especially of children, 'invisible', at least for policy-makers. This paper is based on UNICEF surveys of women and children in subcontracted home based manufacturing carried out over 2001 in five Asian countries – India (Sudarshan et al, 2001), Pakistan (Khan et al, 2001), Indonesia (Oey-Gardiner et al, 2001), Philippines (Rosario et al, 2001) and Thailand (Amara et al, 2001). The first two in South Asia are low-income, and the last three in south east Asia are middle income countries. The surveys covered at least 3 sectors of hbw in each country, and the consequent analysis attempts to fill a gap in the child labour literature by focusing exclusively on child labour in home based manufacturing.

Section 1 presents a theoretical framework for enhancing human capabilities and reducing child labour. The lack of human capital and economic endowments among households where children work is likely to lead to an inter-generational transfer of human poverty, as we discuss in Section 1 of the paper. Section 2 presents the methodology of the surveys done in Asian countries. Section 3 profiles the sectors and households studied in each of the countries. Section 4 goes on to present the findings related to child work in hbw for the countries examined. Section 5 briefly draws some cross-country comparisons based on the data and findings. Section 6 attempts an empirical analysis of the determinants of child labour status and of hours worked, using the raw data from the surveys in India, Pakistan and Indonesia. The concluding section draws some policy implications.

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4 However, in the Philippines, the incidence of child work in hbw in our sample is comparable to that in India (though not as high as in Pakistan).

5 The main sources of data on child labour are national surveys done with the support of the ILO (SIMPOC surveys), the World Bank (LSMS), and UNICEF (the Multiple Indicator Cluster Surveys) over the 1990s. Data from these surveys is being collated on a common website (www.ucw-project.org) by an inter-agency project based at the UNICEF Innocenti Research Centre, Florence.

2. The Theoretical Framework for Enhancing Human Capabilities and Reducing Child Labour

The child labour issue has to be addressed by encompassing a set of issues which start from the child and her household, her household's 'history', and the local external environment. The phenomenon of child labour has also to be located within a view of inter-generational transfer of poverty and its impact on child labour status.[6] The static view has to give way to a dynamic view of child labour. In other words we argue this dynamic view could be a first step in understanding the child labour phenomena in its complexity, consistent with more pro-active development policies in favour of the poor.

The starting point is that each child in poor households in developing countries has often a 'burden' to carry from her birth. A child has a strategic role in these types of households. She has almost the same responsibility as an adult in the household's survival and in case of necessity has to contribute to family income. This is similar to the experience accumulated by her parents during their lives as children and passed on from generation to generation. This reflects the absence of available choices, and underlines Sen's notion of "development as freedom" (Sen, 2000). In other words the child becomes a victim of inter-generational transfer of poverty, caught in a vicious circle, often impossible to overcome by the households themselves.

It is the parents who decide about the child's daily life, about the future, about work, chores and schooling. The parents' decisions can be analysed in terms of opportunity costs. These are influenced by many factors, including the household's demographic characteristics, its factor endowments in terms of human capital, assets and income, as well as its culture and religious beliefs, and the institutions that form the boundaries of social life (the influence of some of which we test econometrically in Section 5). But the parents' decisions are also influenced by external factors that affect the family characteristics and the local socio-economic system. In other words,

Child status (CS) = f (child characteristics, socio-economic characteristics of the hh, external factors to hh)

The status of the child could be one of four possible situations: working only, studying only, working and studying, and neither working nor studying.

The human development of a household (HDhh) has two main dimensions, which as we will see, are strongly related to each other: one, in terms of endowments (HE) of human capital (education, health), and two, in terms of economic endowments (EE), such as the ownership of assets and capability to

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6 See, for example, Basu (1999), Rosati (1999) and Cigno and Rosati (forthcoming).

earn an income.[7] In addition, there are the factors external to the household which impact on both, v_t.

In other words, $HDhh_t = f[(HE_t + EE_t), v_t]$

Where: time $t = 1, \ldots, n$ and v = exogenous factors and/or shocks.

Changes in the household's HD will thus have a path that can be highly volatile, and marked by uncertainty. A household, starting from its initial level of human development can experience movements in different directions, or maintain the same level of HD, depending on the HE and EE. In a graph with HE on the x-axis and EE on the y-axis, a right upward movement signifies an improvement in HD while a shock may reduce HD drastically.

For instance, consider a household AO (first generation) which experiences a movement upward in HD level, as it accumulates human capital or acquires an asset (an additional source of income) or both. Therefore the second generation starts from point A_1, at a higher HD level. This underlines the fact that the HD level is improved by HE and EE which work together to built the household HD. So,

$HE_t = g(x_t, EE_{t-1})$ and $EE_t = I(m_t, HE_{t-1})$,
thus
$HDhh_t = f[(HE(g(x_t, EE_{t-1})); EE_t(I(m_t, HE_{t-1})), v_t]$

Without external intervention the household will remain at t+1 at best in a status quo A_O, as also the future generations of the household. From generation to generation children are merely 'born to work'. A household in that position needs help in improving HE and EE, and for this reason policy interventions are necessary.

The synergy between two sets of interventions can significantly enhance human capabilities and promote income growth. The first synergy is between

7 The factors affecting the human development of a child are:
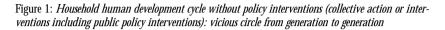1. Endogenous (to the household) factors affecting child's human development:
a) Human endowment: education of mother and father; health status of father and mother; child growing up in single-parent home; demographic characteristics (size of household, its age structure); water, sanitation, environmental quality; institutions (tradition, culture and religion).
b) Economic endowment: income; assets.
2. Exogenous (to the household) factors affecting child's human development:
a) Basic services in the local area: safe water, sanitation, environmental quality; preventive and basic curative health services; schools, kindergarten (availability and quality); institutions (tradition, culture, religion); conflicts (of ethnic, religious or civil nature).
b) Economic endowment in the local area: local (national) economic situation; institutions to enable market access; national institutions (laws), and their effectiveness (ban on child labour, compulsory education); social insurance and assistance policies; redistribution policies.

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interventions within the basic social services (bss) – basic education, basic health, water and sanitation, and nutrition. But these synergies are a sub-set of a second set of synergies, between interventions aimed at social development (which is the outcome of access to, and utilization of bss), income-poverty reduction[8] and economic growth.
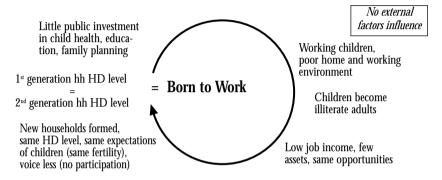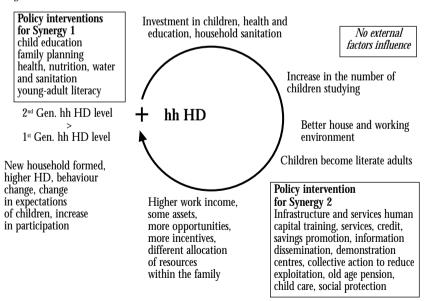
Figure 1: *Household human development cycle without policy interventions (collective action or interventions including public policy interventions): vicious circle from generation to generation*

Little public investment in child health, educa-tion, family planning

No external factors influence

1st generation hh HD level
=
2nd generation hh HD level

= **Born to Work**

Working children, poor home and working environment

Children become illiterate adults

New households formed, same HD level, same expectations of children (same fertility), voice less (no participation)

Low job income, few assets, same opportunities

Figure 2: *Household human development cycle with policy interventions: virtuous circle from generation to generation*

Policy interventions for Synergy 1
child education
family planning
health, nutrition, water and sanitation
young-adult literacy

Investment in children, health and education, household sanitation

No external factors influence

2nd Gen. hh HD level
>
1st Gen. hh HD level

+ **hh HD**

Increase in the number of children studying

Better house and working environment

Children become literate adults

New household formed, higher HD, behaviour change, change in expectations of children, increase in participation

Higher work income, some assets, more opportunities, more incentives, different allocation of resources within the family

Policy intervention for Synergy 2
Infrastructure and services human capital training, services, credit, savings promotion, information dissemination, demonstration centres, collective action to reduce exploitation, old age pension, child care, social protection
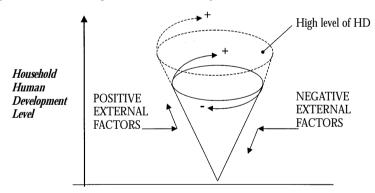
8 For a detailed theoretical discussion of the two sets of synergies, see Taylor et al. (1997) and Mehrotra and Delamonica (forthcoming).

On the other hand, in Figure 2, with public action on several fronts simultaneously, the effect of synergies is captured. On the one hand, exogenous action to improve child health and education levels, and on the other hand, action to increase economic opportunities and strengthen the bargaining power of the home based worker, serve to turn the vicious cycle into a virtuous circle. Participation increases and facilitates collective action and bottom-up institutional changes which reinforce the second synergy.

We argue elsewhere (Mehrotra and Delamonica, forthcoming) that an educated mother would take better care for her children. The synergies of mother's education go further, leading to an improvement in health status, nutrition status, healthy living conditions and a reduction of family size, thus facilitating the demographic transition.

We try to represent the combined effect of the dual synergies in Figure 3. Suppose that each household is positioned on a graduated scale in terms of their level of human development – a reasonably realistic assumption. The household's human development level relative to other households depends on the family's factor endowments such as the level of education, the health conditions, the resources available (income, assets), and so on; these are constructed generation to generation. It is the socio-economic history of the household that has determined that position and thus the vulnerability of the household.[9]

Figure 3: *Factors influencing household's human development level and hence child labour*

The socio-economic record of the household is determined by endogenous factors, which contributed to the human development level of the family. But there are other factors that can influence dramatically its position and are exogenous to the household: external factors, which may be policy-related (e.g. political commitment to the poor, economic policies, such as no environmental sustainable growth), structural (e.g. labour force surplus, resource endowment, institutions, presence of hbw work associations, infrastructure, market

9 The vulnerability is connected to poverty and could be chronic or transient; reducing the vulnerability will reduce the probability for the child to work.

structure including an exploitation chain, unemployment situation), or a host of entirely stochastic factors for the household (e.g. economic shocks, pollution disasters, natural disasters, civil wars, ethnic conflicts). Therefore, policies aimed at promoting human development and reducing child labour need to take the external factors into consideration. The policies should work with synergies, remembering that short cuts are often the wrong way to proceed. Human development is a cumulative effort not just for the household but for the collectivity at local and national level.

Some events or shocks which influence the household position, are exogenous to the household but are endogenous to the collectivity and thus can be influenced by collective action (e.g. a local natural disaster such as floods, pollution and epidemic disaster can in part be prevented by collective action e.g. prevention through a vaccination campaign, and at international level economic policy may be achieved through lobbying).

In line with a large body of literature, we argue elsewhere (Mehrotra and Delamonica, forthcoming) that an educated mother would take better care of her children. The synergies of mother's education go further, leading to an improvement in health status, nutrition status, healthy living conditions and a reduction of family size, thus facilitating the demographic transition. Note that although female literacy is more relevant for improvement of the household's HD level from generation to generation (via the synergies mentioned above), the education of the father is relevant for family decisions and their impact on intra-household resource allocation.

As a theoretical construct this notion of the dual synergies is a framework for understanding a given situation in terms of human development outcomes;[10]

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10 The Chinese socio-economic success is strongly related to the two synergies at work which brought economic growth and human development since the 1980s. Since 1978, the people under the poverty line fell from 250 million (almost all rural dwellers lacking adequate food and clothing) to 37 million (34 million of which are in rural areas) in 1999. In the same period the child labour (10 to 14 years old) incidence fell from 30.5% in 1980 to 8.6% in 1999. The reduction of poverty and child labour were attained mainly in the early 1980s when the rural reforms became the cornerstone of the whole development strategy.

There were three main reasons for this success. The first was that the socio-economic bases for long term development were laid and all the elements for the first synergy were present. Indeed, this included basic industry and general infrastructure, but also improved irrigation schemes and extension services in agriculture. Health care and education systems were accessible and affordable (especially in rural areas) to all citizens. The second reason was the reforms implemented and the institutional changes which brought with them a gradual transition to the socialist market system. The institutional changes gave the right incentives at both levels - micro (household level) and macro level (through decentralization) - and promoted rapid economic growth. The last reason was the reforms in rural areas: the strategy of growth was targeted to sectors which were the income source of the mass of the poor i.e. agriculture and non-farm activities. Agriculture became - together with the rural Small and Medium Enterprises or Township and Village Enterprises (TVEs) - the leading sector of Chinese socio-economic development and economic growth. The bottom up reforms which created the household responsibility system (and the disaggregation of the Commune system) were fundamental to Chinese farmer incentives and welfare improvement. Maintaining the right to land use was the most important way of preserving farmers' entitlements and it remains an important safety net for rural dwellers.

it is, at the same time, a framework for drawing policy implications.[11] It builds upon some recent literature, and also needs to be distinguished from some antecedents along similar lines in the development economics literature. First, the synergy notion has to be distinguished from the concept of linear stages of development which was characteristic of the writings of Rostow (1959; 1960). Instead we propose that development proceeds along cyclical stages, and that given the right interventions, a transformation (preventing international transfer of poverty) is possible in a generation. The cycles can be characterised by simultaneous progression along desired outcomes of social development, income-poverty reduction and economic growth, or cycles in the opposite direction. In fact, development patterns of countries can be understood by locating countries along these three axes of desirable outcomes (Taylor et al., 1997).

Second, it should also be distinguished from Kuznets' notion of linear stages of development i.e. that the relationship between income inequality and per capita income may be described by a curve (an inverted U), with an upward phase in which income inequality increases with increases in per capita income, and a downward phase in which income inequality declines with increases in per capita income. Rather, the notion of the second synergy is built upon more recent theoretical and empirical literature, which has demonstrated the benefits for growth of low levels of asset and income inequality (Birdsall and Londono, 1997; Alesina and Perotti, 1994).

Third, our notion of synergies is conceptually close to the dynamic which is intrinsic to Marx's dialectics (without necessarily implying any corresponding notion of historical stages). Fourth, our theoretical construct also draws strongly upon the literature of the last two decades, which emphasises the positive externalities in interventions in health, education and family planning.[12] Finally, the intellectual antecedents of our dual synergy construct can also be found in the capability approach, especially its emphasis on women's agency – particularly in the version now associated with the work of Amartya Sen and Martha Nussbaum. With Sen and Nussbaum, we strongly believe that womens' agency is critical to triggering the first set of synergies (which are a sub-set of the second set).

We stress the generation to generation transfer of poverty (or its reversal) because some policies which may seem to increase child labour in the short run actually help to reduce household poverty and child labour reduction in the medium run. The increase in the assets (e.g. land) of the family may initially increase child labour. For instance, Cigno and Rosati (2002) argue that land redistribution may increase the incidence of child labour, since smallholder plots are intensively farmed, and the intensity of labour input rises with the size

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11 For a discussion of the dual synergies as a framework of analysis, see Taylor et al, 1997, and Mehrotra and Delamonica, forthcoming.

12 Our main criticism of the notion of externalities is that it does not capture fully the feedback effects from human development outcomes to social service inputs, and the virtuous cycle from inputs to outcomes in an upward spiral.

of the farm up to a certain farm size. However in a dynamic context, such land redistribution can, all other things remaining equal, increase family income and welfare and later, if better or modern inputs can be bought, lead to a child labour reduction on the family farm; just as increasing income may lead to falling child morbidity and a higher likelihood that the child goes to school while family labour is replaced by hired labour.

3. Methodology

Within this theoretical framework, both quantitative and qualitative methods were adopted for each national study on subcontracted hbw work by women and children in five Asian countries. The quantitative method involved an *ad hoc* household survey, based on a core questionnaire designed by UNICEF, largely common to all the countries. In particular, the questionnaire was divided into different sections regarding social information as well as general economic and non-economic activities.[13] The qualitative methods, focus group discussions (FGDs, one with women workers, and the other with child workers) and case studies, were used for each sector/cluster, parallel to the quantitative survey. The FGDs with children are the basis of the later sub-section on 'voices of children'. At least three sectors/clusters have been examined in each country.

The sample design for the survey data collection is purposive (*ad hoc*). The statistical units of the 'population' surveyed are the households engaged in hbw work. This population is active in the informal sector and thus very often 'invisible' to official statistics. It would thus be impossible or excessively expensive to prepare a list of households engaged in hbw work (including in a given sector). For this reason the design of the sampling had to follow a specific method taking into account the information already available.

We had information *a priori* that the hbw households involved in manufacturing are generally clustered. In particular, they tend to be clustered in a specific location on the basis of the type of goods being produced. A second characteristic, very important for the sample design, is the degree of socio-economic homogeneity of hbw households (this emerges in the literature and also in our FGDs), which is very high within each sector/cluster.

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13 The questionnaire had the following sections: i) Household characteristics: this section covered basic information about the household along with their social and ethnic background. Data on age, sex, marital status, educational status, occupation was collected for each person in the household. ii) Economic profile of the household: including average monthly expenditure and income of the household. iii) Information related to home based work: including details on the type of hbw, hours of work, days worked per week, months worked in a year, average wages earned, expenditure on raw materials, sources of funds, nature of contract, etc. iv) Time allocation and work organization. v) Home based workers women's organization: intended to capture benefits received from employer/contractor, and general awareness of worker issues. vi) Child related: including extent of contribution of work by children and its effect on their education and household economy. vii) Health: specially health problems suffered due to work. viii) Perceptions: relating to policy interventions and to child work.

The first problem to be solved in the design of the sample at national or regional level was the identification of three/four home based work manufacturing sectors and to decide on the specific clusters to be surveyed. The sectors selected all involve subcontracting (as almost all home based work activities). Furthermore, if compatible with the sampling design, the products of at least one sector in each country were exportable, so that the links with the global market can be drawn.

Considering that there are hundreds (or even thousands) of clusters of hbw in each country – even if a list of these was available (and this is not the case) – a purely random choice is not the right way to proceed. This is the reason for the small number of clusters selected for the *ad hoc* micro-surveys in each country. For this reason the best way to proceed is to ask expert "privileged observers" to identify the sectors/clusters to be surveyed (Fabbris, 1990). The sector/cluster selection probability is connected to the 'probability' of the experts to correctly identify those specific sector/clusters for the survey. Further, in each country we sought advice from more experts from different institutions (local agencies, NGOs, workers' associations, researchers, government authorities) representing different categories of interest in order to compensate for an eventual bias in 'privileged observer' selection.

The outcome of this sampling method can be considered very close to a purely random sample at different levels in each country. The samples obtained should be close to representative for home based work households in India at national level, for Pakistan for the city of Karachi, but extendable – given the *a priori* information (Khattak, and Sayeed, 2000) – to the other urban areas of the country, and for Indonesia for the West and Central provinces of Java. In view of this proposition, only the data collected for India, Pakistan and Indonesia are used in the micro-econometric analysis in support of the theoretical discussion on inter-generational transfer of poverty and in order to draw policy implications later. The samples for the Philippines and Thailand, on the other hand, are representative at sector level only. For these two countries, when the tables refer to the aggregate 'all' (given by the sum of the sectors) we imply that the value is mainly indicative.

The sectors/clusters locations selected, the sample size and the number of households interviewed are presented in Table 1.[14] Here we briefly present some details about the sample method in each country. (If certain information was not collected in the survey or the data were not comparable, this is indicated with a dash.)

In *India*, as in the other countries, the first step was to choose the man-

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14 The home based workers in the sample were defined to include subcontracted workers, working from their home, or self-employed workers, working from their home. The categories are not mutually exclusive, and no effort was made to distinguish between 'subcontracted workers' and 'occasionally subcontracted workers'. The majority of workers surveyed was found to be subcontracted workers; the same workers might be self-employed part of their time.

Table 1: Surveys on hbw in five Asian countries: sectors, location, number of FGDs and households surveyed

COUNTRY SECTOR	LOCATION	Number of FGD*			Households Surveyed			Urban		Rural	
		Total	Urban	Rural	Total	HBW	CG	HBW	CG	HBW	CG
INDIA											
Incense stick making (Agarbathi)	Bangalore District, Karnataka	2	1	1	201	153	48	78	23	75	25
Bidi (MP+TN)	MP+TN	5	2	3	201	151	50	91	25	60	25
Bidi (MP)	Indore District, Madhya Pradesh	3	2	1	101	76	25	76	25	–	–
Bidi (TN)	North Arcot Ambedkar District, Tamil Nadu	2	–	2	100	75	25	15	–	60	25
Zardosi	Lucknow District, Uttar Pradesh	2	1	1	201	148	53	58	12	90	41
Sub-Total		9	4	5	603	452	151	227	60	225	91
PAKISTAN											
Incense stick making	Orangi, Unit 12C, Karachi	2	2	–	99	77	22	77	22	–	–
Carpet weaving	Korangi Town, Karachi	2	2	–	99	77	22	77	22	–	–
Sack stitching	Godhra, Karachi	2	2	–	100	75	25	75	25	–	–
Prawn peeling	Machar Colony (Mohammadi Col.), Karachi	2	2	–	99	74	25	74	25	–	–
Sub-Total		8	8	–	397	303	94	303	94	–	–
INDONESIA											
Pottery	Purwakarta, Plered/Sukatani Distr., West Java	2	–	2	100	70	30	63	7	7	23
Rattan	Cirebon, Weru District, West Java	2	–	2	100	70	30	70	30	–	–
Batik	Pekalongan, Wiradesa/Tirta Distr., Central Java	2	–	2	100	70	30	30	14	40	16
Sub-Total		6	–	6	300	210	90	163	51	47	39
PHILIPPINES											
Home décor	Rizal Prov., Luzon	3	2	1	45	36	9	36	9	–	–
Metalcraft	Kalayaan in Angono, Rizal Prov., Luzon	–	–	–	–	6	–	–	–	–	–
christmas lights	San Vincente in Angono, Rizal Prov., Luzon	–	–	–	–	20	–	–	–	–	–
christmas balls	San Vincente in Angono, Rizal Prov., Luzon	–	–	–	–	10	–	–	–	–	–
Pyrotechnics	Sta. Maria, Bulacan, Luzon	3	–	3	44	35	9	–	–	35	9
Okra	Sierra, Concepcion, Tarlac province, Luzon	2	–	2	43	34	9	–	–	34	9
Fashion accessories	San Roque, Talisay, Cebu Province, Visayas	2	2	–	41	30	11	30	11	–	–
Sub-Total		10	4	6	173	135	38	66	20	69	18
THAILAND											
Paper products	Photho Distr., Prov. Angthong, Central; Song Distr., Phrae Prov., Northern	2	–	2	132	102	30	–	–	102	30
Leather Crafts	Ratburana Distr., Bangkok Prov., Central; Samrong Distr., Samutprakarn Prov., Central	2	–	2	136	102	34	98	28	4	6
Hybrid seeds production	Sakon Nakhon and Kalasin prov., Northeast	3	–	3	131	101	30	–	–	101	30
Sub-Total		7	–	7	399	305	94	98	28	207	66
TOTAL		40	16	24	1872	1405	467	857	253	548	214

Notes: - indicates that data were not collected in the survey or data collected were not comparable. FGD = Focus Group Discussion, HBW = Home Based Worker, CG = Control Group or Non-hbw household. * Considering separately one for women and one for children, MP= Madhya Pradesh, TN= Tamil Nadu
Source: UNICEF survey.

ufacturing sectors and to decide the sector/clusters locations to be surveyed. According to a nationally representative sample survey (carried out by the National Sample Survey Organisation), there are 30 million home based workers in India and they are concentrated (around 70 to 85 per cent) in three sectors: bidi,[15] incense stick (agarbathi) and garment (among which zardosi[16]) manufacturing. These sectors were thus chosen to be part of the sample design. The sectors/clusters and the locations were identified through an interaction with 'privileged observers' such as the Ministry of Labour (Labour Ministry officials), representatives of Self-Employed Women's Association (SEWA), representatives of the Social Security Association of India and representatives of UNICEF India office. The Ministry of Labour is engaged in the formulation of a National Policy on Home-based Workers and for this purpose has compiled a list of sectors in which hbw is known to be significant. This list provided the starting point. The second step was to identify the locations of the clusters. The clusters chosen by the above mentioned experts are in different/distant geographical areas (Uttar Pradesh, Karnataka, Tamil Nadu, Madhya Pradesh) of the country and this helps to capture the different characteristics among Indian states.

For *Pakistan* the selection of the sectors/clusters (carpet weaving, incense stick-making, shrimp-peeling, and sack-stitching) locations took into account previous studies that emphasised the similar characteristics of hbw households in Pakistan's urban areas. The experts interviewed picked Karachi, Pakistan's largest industrial city by far, because most hbw activities take place there. Also, the close links of the research institute commissioned to conduct the research with PILER (Pakistan Institute of Labour Education Research), engaged in action research/training based in Karachi, facilitated the fieldwork. The sectors chosen would be representative of (urban) slum areas. The field team, after discussions with PILER project leaders and the Aurat Foundation in Pakistan, carried out the sector identification.

In *Indonesia* the choice of sector/cluster (rattan furniture, ceramic pottery and batik printing on garments) locations for the *ad hoc* survey were again based on *a priori* information and expert collaboration. The setting of home workers in the wider labour market is based on analysis of the National Labour Force Survey data collected by the CBS (Central Board of Statistics) and in particular the results of the latest Economic Census of 1996 were used. One of the team consultants was a member of the CBS. Experts from different institutions and independent researchers were involved as well. Among the experts there was a representative from MWPRI (Mitra Wanita Pekerja Rumahan Indonesia or National Friends of Women Home-Workers).[17]

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15 Tobacco leaves rolled to make cigarettes, consumed largely by the urban poor and in rural areas.
16 Embroidery on garments, with gold thread, involving skills usually passed on from generation to generation.
17 The researcher was also involved in the ILO-DANIDA project and in charge of the World Bank funded study on home based workers in Indonesia. MWPRI is a member of Homenet International in Thailand and Philippines as well. Homenet International was invovled in the research design and process.

The sectors selected were batik in the province of Central Java, and rattan and ceramics in the province of West Java. Once the regencies (administrative area) were identified, two clusters in different districts were chosen for each sector. The unit for data collection, as for the other countries, was the household. Identification of potential households for inclusion in the study was delegated to the staff of local statistical offices at the regency level. Staff members of the regency statistical office were requested to list about 250 eligible households, in 2 to 3 villages located in either one or both districts identified by the Central office. To determine eligibility the hbw household was to have a female home based worker in the selected sub-sector and a child between the ages of 6 to 15 years. This second criteria helped to reduce the sample size since the core of the study was concerned with children in this age category. It was from this list that interviewers selected the households. In each sub-sector the questionnaire was administered to 70 households, plus 30 households to serve as the control group (CG). Replacements were found through a 'snowballing' technique whereby the next household was found using information obtained from a household fulfilling the eligibility criteria.

In *Thailand* the sectors/clusters locations were chosen with the collaboration of the field research team, the Office of Home Based Workers (Ministry of Labour and Social Welfare) and Homenet (network of NGOs working to promote research and development for home based workers). The survey covered the central, north and north east regions of the country. The criteria for the selection of the home based sectors/clusters (saa paper, leather craft and hybrid seeds production) were the involvement of subcontracting in the production process and the production both for domestic and foreign markets. The survey included 305 households engaged in hbw, and 94 CG households. The survey was conducted in both rural and urban areas, though the majority of the households surveyed were in rural areas.

In the *Philippines* the locations of sectors/clusters were chosen following the recommendation of UNICEF Manila and the NGO Patamaba, involved in the research. The selected locations were Luzon and Visayas. The choice of home based sectors/clusters was based on the involvement of subcontracting and production for the domestic and export markets. The selected sectors were pyrotechnics production in Bulacan, okra production and packaging in Tarlac, home decor (christmas lights and christmas balls) production in Rizal, and fashion accessories production in Cebu. The Tarlac and Bulacan sites were rural, while Rizal and the site for fashion accessories in Cebu were at the outskirts of the two major Philippine cities – Metro Manila and Cebu City respectively. The sample was equally distributed between urban and rural areas.

So that comparisons could be made in all countries a control group of households in the same geographical area, not engaged in hbw (with no family member working in any home based activity) was included in each sample. The CG consists of households in the same neighbourhood as hbw house-

holds. If the area was rural then households from the same/neighbouring village were included; if urban, the same neighbourhood. The survey data shows they had roughly the same income level.

The hbw households (households with at least one family member working mainly in the home based sector) were chosen randomly. In other words hbw households included in the samples were not pre-selected for the presence of child workers. The sampling method at the micro-level is slightly different among the countries. The portion of the hbw households interviewed were a large part (more than 50 per cent) of the hbw population of each cluster (very close to a micro-census in some of the clusters surveyed).

In this context a relevant aspect is the possibility of variability among the households of the sample. As we expected, the population of the hbw households is extremely homogeneous within each cluster. The homogeneity in each location is very strong and even the CG (or non-hbw households) shares similar socio-economic characteristics. The reduced variability diminishes the importance of the dimension of the sample size and increases the importance of the selection method. Thus, although a purely random choice could not be carried out the methods used assure an outcome very close to a random choice (Smith, 1983).

4.   Profile of Sectors and Households

This section presents the sample size covered in both rural and urban areas for the hbw and CG households, the city and region where hbw activities take place, location of the sectors i.e. urban or rural, the type of activity involved, and the dynamics of the size of the market for the hbw products.

The three to four sectors examined in each country are listed in Table 1. The sectors in *India* are incense sticks (agarbathis) in Bangalore district (in the state of Karnataka); bidi-making (tobacco leaves rolled to make cigarettes) in Indore (in the state of Madhya Pradesh) and Vellore district (in Tamil Nadu); and zari/zardoshi (embroidery on garments) in Lucknow district (in the state of Uttar Pradesh). In incense, zardoshi, and bidi (in Tamil Nadu) the sample covered rural, peri-urban and urban areas, but was limited to an urban area in bidi in Madhya Pradesh. Of the 452 hbw households, there were 225 rural and 227 urban households in the sample in India.[18] The CG consisted of 151 households. The market for all three product-groups is external as well as domestic. In the case of most households, hbw was not the only source of income; other members of the household were engaged in rural areas in agriculture and in urban areas in other activities.

In *Pakistan* four sectors were chosen, all located in the major city port of Karachi, on the Arabian Sea coast. There were 303 hbw households in the

18 Within each sector two types of household were canvassed: those households where both spouses were engaged in home based work and households where only women are involved in home based work.

sample, and 94 in the CG – all located in urban areas. The four sectors were incense stick making (the same as in India), carpet weaving, sack stitching, and prawn peeling. The market for carpets, prawns, and incense sticks is predominantly external, and to some extent domestic; for sacks it is both. In terms of the ethnic composition of the groups engaged in hbw, three were immigrant communities (Burmese muslims from Myanmar and Bengali muslims from former East Pakistan), and in the fourth sector (sack stitching) the community had migrated to Karachi at the time of independence from the Indian state of Gujarat.[19] As in India, hbw was not the only source of income for the household.

In *Indonesia* three sectors were selected – batik printing on garments, rattan furniture and ceramic pottery. There were 210 hbw households in the sample, and 90 in the CG. The site for the batik sector was in central Java – an area long known for Indonesia's famous batik work – in three villages, located 10-15 kms from the sub-district capital. While the general area is known as a batik centre, most men in the villages selected rely on fishing and farming for their livelihood. Batik-making at home is essentially women's work. Farming, fishing and batik skills are passed on from generation to generation, and learned from experience rather than formal education or training institutions.

The rattan sites selected were an urban centre (Tegalwangi on the northern coast of Java) and two smaller villages (in Cirebon district). Tegalwangi is an urban centre associated with the rattan furniture industry, while the villages are largely agricultural with rice fields. As the terms of trade for agricultural products, especially rice, continue to fall, villagers prefer to find income earning opportunities through off-farm work. The third site, chosen for the third sector – pottery – consisted of the village of Anjun (in district Purwakarta), which is known as West Java's small-scale pottery industry centre. All three products are mainly produced for the domestic market, but they are also exported.

In *Thailand*, of the three sectors chosen, two were in manufacturing – paper products (saa paper[20], artificial flowers, etc) and leather crafts – and one in agriculture, hybrid seeds production. There were 305 hbw households in the sample, and 94 in the CG. All three product-groups have a strong external market, but with a domestic market as well. Two villages were selected in northern Thailand for paper products. Most villagers are rice farmers; families also have their own mixed fruit garden; and during more intensive agricultural seasons, hbw is not undertaken.

19 The sample was not purposively chosen for its ethnic composition. The four CGs (one corresponding to each home based work cluster) happened to consist of Punjabis who had migrated from north Pakistan to Karachi.

20 Saa paper is made from a fibrous raw material called mulberry which is extracted from the plant's (Broussonetia papyrfera, Veng.) bark. It is used as wrapping paper, and to make scripture paper, hand-held fans, umbrellas, and artificial flowers, greeting cards, notebooks, photoframes and countless other home decorations. The raw material is ordered from northern and southern Thailand.

The leather work involving subcontracting includes leather shoes and bags; since these are fashion products, mass production of a few designs is a risk-prone strategy in a fashion conscious market characterised by shifting demand.[21]

Hybrid seed production, an agricultural activity, is carried out in the field rather than at home.[22] Nevertheless, it is part of the informal sector and is carried out on family farms. Hybrid seeds are used to grow water melons, chile peppers, cantaloupe, and several vegetables. However, the seeds from these high-yielding crops are sterile, so farmers have to buy from seed companies in order to produce the new round of crops. The production of the crop and of seeds is mostly for export.[23]

In *The Philippines* there were four kinds of activities selected for assessing hbw – home décor (specifically Christmas balls and lights; metalcraft e.g. wrought iron baskets); fashion accessories (e.g. wood bead necklaces); pyrotechnics (or firecrackers); and okra vegetable production. There were 135 hbw households in the sample, and 38 in the CG. Only fireworks are produced for the domestic market; the other product groups are mainly for export; okra production is only for export. All utilise the subcontracted labour of home-workers. Okra growing is unique because, like hybrid seed production in Thailand, it does not involve the usual 'in house' production.

In India, of the three sectors chosen, only bidi-making seemed to be a declining industry in terms of the size of the market; and in Indonesia rattan furniture was also regarded as a declining industry. However, all other activities in the other countries seemed to be growing markets, regardless of whether they were traditional activities (e.g. pottery, leather, zardoshi) or more non-traditional ones (e.g. okra production, hybrid seed production, prawns). The Thai sectors were strongly influenced by the Asian crisis.

Almost all product groups chosen could be regarded as manufacturing activities; only three involved the processing of agricultural products: prawn

21 Manufacturers usually do the cutting and patterning work themselves, while the human skills required entail subcontracting sewing work to home based workers. Thai female workers are generally skillful sewers able to do refined craft work, and the wage is lower than in neighbouring countries (e.g. Hong Kong, Taiwan, Malaysia, Singapore, Korea). But Thailand cannot compete with these countries in terms of leather craft design. Hence, the industry must accept orders from brand-name companies and produce under license. Many brand-name leather products – Pierre Cardin, Gucci, Tiptop, Jacob – are mainly produced in Thailand. Three groups of leather workers were selected: individual family home-workers in slum communities around Bangkok; home-workers as organized groups with support from government agencies (in Pathumthani province); and small unregistered factories doing subcontracted work (with workers paid by the month).

22 Technically this is not seen as home based work, according to the government of Thailand's Office of Home Based Work, and hence receives little attention or protection from government, unlike the other two sectors.

23 There is fierce competition among seed production companies in the region, and Thailand has suffered a quota reduction, with a shift to Vietnam because of its fertile land, industrious labour and low wages.

peeling in Pakistan, okra production in Philippines, and hybrid seed production in Thailand (all three for export). In fact, much of hbw in Asia involves manufacturing activities.[24] However, this does not mean that hbw is confined to urban areas. In fact, the subcontracting of such manufacturing activities extends to the rural household. Rural areas were part of the sample in India and Indonesia (though not in Pakistan, where all locations are in Karachi). In this sense it holds out the prospect of bringing rural areas into the fold of manufacturing activities.

5. Some Cross-country Highlights on Child Labour in Home Based Work

A number of summary observations can be made from the findings of our country studies. First, there is a sharp distinction between the experience of children in hbw in South Asia on the one hand and South East Asia (Indonesia, Philippines, Thailand) on the other. Second, there are some important contrasts and fewer similarities between the situation of Indian and Pakistani children.

The percentage of children who are only working, rather than studying and working, is much higher in South Asia than in South East Asia. In other words, it is not as though the phenomenon of child work is not prominent in South East Asia. Even in Thailand, a significant proportion of hbw households have children who are working (some in home based activities, others probably farming). But it is the phenomenon of quite widespread involvement of children in work that seems striking across the board in Asia, regardless of whether it is a low-income or middle-income country.

There is a much greater participation in school among children in hbw households in South East Asia as compared to South Asia, at all ages. The difference is not very striking at the early ages, but it is much greater for the older age group. There is a strong impression from the data that while children's contribution to the family work is valued, schooling is valued even more. Perhaps the difference lies in the reasons for not going to school. In South Asia there is a clear perception that they 'cannot afford' to go to school, or that 'school is too expensive'. In South East Asia parents are willing and able to support their children going to school.

In terms of hours worked by children, by and large the number of hours appears to be close to or over the limit of what is practical to combine with schooling. However, in Pakistan the number of hours appear to be around 50 per cent higher than in other countries – consistent with the fact that a very high proportion of children are not in school.

Within South Asia, there is a sharp contrast between India and Pakistan in some respects. In Pakistan a much higher proportion of children is out of school. A much higher share of children are only in work. Similar proportions

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24 However, that is much less the case with home based work in Latin America. See the evidence in a number of ILO studies of the late 1990s, summarised in Tomei (2001).

of children in both countries are engaged in both work and school. The contrasts are particularly striking in the one sector that happens to be common across the two countries – incense stick making (agarbathi). Nevertheless, the phenomenon of debt bondage exists to some extent in both countries.

6. The Findings on Child Labour in Home Based Work – by Country

Most of the households surveyed are poor in South Asia. It is evident that specially in South Asia (India and Pakistan) home based work is a survival activity in the sense it is an activity to stave off destitution. More hbw households in India are below the poverty line than the average for the population of that state.[25] In Pakistan, 60 per cent of hbw households were below the poverty line (for urban Sindh where Karachi is located), which is high compared to the 20 per cent of households recorded as poor in urban Sindh (in 1996-7).

However, in South East Asia, the income of the household engaged in home based work is often above the national poverty line. This is true in two of three sectors in Indonesia (rattan and pottery), even though only slightly above the poverty line. Similarly, in Thailand, incomes in the three sectors (especially in leather) are above the poverty line. This underlines that home based work – as well as informal sector activities such as micro enterprises – can be an important opportunity not only as a line of defence against poverty and vulnerability, but can be an important source of income diversification. In addition to generating improved welfare, they can lead to the evolution of entrepreneurial capabilities and micro or small enterprises (an issue discussed extensively in the companion paper).[26] In all countries, home based work is a second source of income in the household; however, incomes are obviously generally lower in the South Asian households engaged in home based work, while that is less the case in South East Asia.

In the rest of this section we discuss the incidence of child work in hbw and CG households, the schooling of children in these households, the reasons why children are working/not in school, the contribution of children in terms of hours of work, their work conditions, their health status, how gender affects their time use. Finally, we narrate the views of children working – as they emerged from the FGDs.

▪ 6.1 *Incidence of child work*

In *India* (as elsewhere) 15 is the legal minimum working age. A quarter of *all children* aged 5-14 in hbw households work in the home based activity. The

25 The exception is agarbathi makers in rural areas – who happen to be located near the large industrial city of Bangalore, where employment is better paid, so the menfolk have been able to find better employment, thus increasing the hbw household's total family income.
26 See Mehrotra and Biggeri (2002).

share is much smaller among the younger children (5-10 years old), than among the older ones (11-14 year olds) – 13 per cent as against 44 per cent on average across all sectors studied (Table 2a).[27] The incidence of child work in the hbw households is much greater than in the CG (non-home based work) households. In fact, hardly any children in the CG households are working (Table 2b). As much as four-fifths of the children working in hbw households are involved in hbw.

In households where the children were working as home workers, the family was asked what effect there would be on the household if the child stops working. In India, over a quarter (28 per cent) of the households felt that the household enterprise's capacity to produce would not operate fully (i.e. would remain under-utilised). As many as 57.5 per cent of the households felt that their living standards would decline; 8 per cent felt that the household cannot afford to survive without the child's contribution to household income.[28]

In *Pakistan* there was a very high fertility rate. A much higher proportion of children in hbw households is working in Pakistan compared to the sectors in India – across all sectors the share is 56 per cent. The share of younger children working (44 per cent) is the highest for all the countries surveyed for this study, and the share does not vary much between sectors. As many as four-fifths of all older children are working, with very little variation across sectors.[29]

In *Indonesia* there were 339 children between 5 and 14, of which 56 (18 per cent) were working – over 70 per cent of the working children in hbw households were in the home based manufacturing activity; the rest were doing other work. By comparison, under 10 per cent of children were working in the CG households (which had 148 children). Even among hbw households, the incidence of child labour below age 10 is very low. The share of working children in the CG is low – as in India and the Philippines – consistent with the national average for work participation rates of older children in Indonesia (3-4 per cent in recent years, or about 6-8 million children in the country). If the child were to stop working, in the household's view, this would not have catastrophic consequences, unlike the answers we obtained in India. Thus, only 13 per cent of households felt that if the child stopped working, the household's standard of living would decline, and the same proportion felt that the household production would operate at less than full capacity.

In *Thailand* only 6 of the 228 children were found to be working full-time as home workers. However, about 15 per cent of children in hbw households from the three sectors are helping in home based work. Most of these

27 Where tables do not contain the relevant information for a particular country, this is because the survey did not collect information which was exactly comparable on a cross-country basis.
28 Nearly 7 per cent of the households had other answers which did not fall in these three categories.
29 In Pakistan the CG households were purposively chosen to be those where children were not working. Hence the comparison with the CG households would not hold.

Table 2a: Share of children working by age group in hbw households (I = 5 to 10; II = 11 to 14)

SECTOR	Total children			Children working		% of children working		% of children not working		Number of children working in hbw		% of children working in hbw			% of children not working in hbw			% of children working in HBW on total children working		
	Tot.	I	II	I	II	I	II	I	II	I	II	Tot.	I	II	Tot.	I	II	Tot.	I	II
INDIA																					
Incense stick making (Agarbathi)	207	136	71	9	25	6.6	35.2	93.4	64.8	7	11	8.7	5.1	15.5	91.3	94.9	84.5	52.9	77.8	44.0
Bidi (MP+TN)	185	101	84	20	41	19.8	48.8	80.2	51.2	20	35	29.7	19.8	41.7	70.3	80.2	58.3	90.2	100.0	85.4
Bidi (MP)	90	46	44	16	26	34.8	59.1	65.2	40.9	16	22	42.2	34.8	50.0	57.8	65.2	50.0	90.5	100.0	84.6
Bidi (TN)	95	55	40	4	15	7.3	37.5	92.7	62.5	4	13	17.9	7.3	32.5	82.1	92.7	67.5	89.5	100.0	86.7
Zardosi	239	128	111	27	79	21.1	71.2	78.9	28.8	21	71	38.5	16.4	64.0	61.5	83.6	36.0	86.8	77.8	89.9
All	631	365	266	56	145	15.3	54.5	84.7	45.5	48	117	26.1	13.2	44.0	73.9	86.8	56.0	82.1	85.7	80.7
PAKISTAN																					
Incense stick making	257	170	87	–	–	–	–	–	–	68	67	52.5	40.0	77.0	47.5	60.0	23.0	–	–	–
Carpet weaving	260	185	75	–	–	–	–	–	–	79	60	53.5	42.7	80.0	46.5	57.9	20.0	–	–	–
Sack stitching	253	142	111	–	–	–	–	–	–	63	98	63.6	44.4	88.3	36.4	55.6	11.7	–	–	–
Prawn peeling	236	186	50	–	–	–	–	–	–	88	36	52.5	47.3	72.0	47.5	52.7	28.0	–	–	–
All	1006	683	323	–	–	–	–	–	–	298	261	55.6	43.6	80.8	44.4	56.5	19.2	–	–	–
INDONESIA																					
Pottery	107	55	52	8	19	14.5	36.5	85.5	63.5	7	13	18.7	12.7	25.0	81.3	87.3	75.0	74.1	87.5	68.4
Rattan	124	79	45	2	12	2.5	26.7	97.5	73.4	2	9	8.9	2.5	20.0	91.1	97.5	80.0	78.6	100.0	75.0
Batik	108	70	38	3	12	4.3	31.6	95.7	68.4	2	7	8.3	2.9	18.4	91.7	97.1	81.6	60.0	66.7	58.3
All	339	204	135	13	43	6.4	31.9	93.6	68.1	11	29	11.8	5.4	21.5	88.2	94.6	78.5	71.4	84.6	67.4
Home décor	69	37	32	6	18	16.2	56.3	83.8	43.8	4	16	29.0	10.8	50.0	71.0	89.2	50.0	83.3	66.7	88.9
Pyrotechnics	66	39	27	13	17	33.3	63.0	66.7	37.0	13	17	45.5	33.3	63.0	54.5	66.7	37.0	100.0	100.0	100.0
Okra	70	41	29	11	14	26.8	48.3	73.2	51.7	10	13	32.9	24.4	44.8	67.1	75.6	55.2	92.0	90.9	92.9
Fashion accessories	74	39	35	4	17	10.3	48.6	89.7	51.4	4	17	28.4	10.3	48.6	71.6	89.7	51.4	100.0	100.0	100.0
All	279	156	123	34	66	21.8	53.7	78.2	46.3	31	63	33.7	19.9	51.2	66.3	80.1	48.8	94.0	91.2	95.5
THAILAND																					
Paper product	67	42	25	–	–	–	–	–	–	3	15	26.9	7.1	60.0	73.1	92.9	40.0	–	–	–
Leather crafts	62	44	18	–	–	–	–	–	–	4	4	12.9	9.1	22.2	87.1	90.9	77.8	–	–	–
Hybrid seeds production	99	62	37	–	–	–	–	–	–	4	5	9.1	6.5	13.5	90.9	93.5	86.5	–	–	–
All	228	148	76	–	–	–	–	–	–	11	24	15.4	7.4	31.6	84.6	92.6	68.4	–	–	–

Note: Children under five are not counted in this table

Source: UNICEF survey

Table 2b: Share of children working by age group in non-hbw households (control group) (I = 5 to 10; II = 11 to 14)

COUNTRY SECTOR	Total children			Children working		% of children working		% of children not working	
	Tot.	I	II	I	II	I	II	I	II
INDIA									
Incense stick making (Agarbathi)	66	46	20	1	2	2.2	10.0	97.8	90.0
Bidi (MP+TN)	35	15	20	0	0	0.0	0.0	100.0	100.0
Bidi (MP)	19	10	9	0	0	0.0	0.0	100.0	100.0
Bidi (TN)	16	5	11	0	0	0.0	0.0	100.0	100.0
Zardosi	69	48	21	0	0	0.0	0.0	100.0	100.0
All	170	109	61	1	2	0.9	3.3	99.1	96.7
PAKISTAN									
Incense stick making	43	32	11	–	–	–	–	–	–
Carpet weaving	61	46	15	–	–	–	–	–	–
Sack stitching	70	46	24	–	–	–	–	–	–
Prawn peeling	65	46	19	–	–	–	–	–	–
All	239	170	69	–	–	–	–	–	–
INDONESIA									
Pottery	56	33	23	1	3	3.0	13.0	97.0	87.0
Rattan	47	28	19	0	2	0.0	10.5	100.0	89.5
Batik	45	28	17	0	1	0.0	5.9	100.0	94.1
All	148	89	59	1	6	1.1	10.2	98.9	89.8
PHILIPPINES									
Metalcraft. Xmas decors	17	11	6	0	0	0.0	0.0	100.0	100.0
Pyrotechnics	19	10	9	0	0	0.0	0.0	100.0	100.0
Okra	16	10	6	0	1	0.0	16.7	100.0	83.3
Fashion accessories	26	10	16	1	4	10.0	25.0	90.0	75.0
All	78	41	37	1	5	2.4	13.5	97.6	86.5
THAILAND									
Paper product	14	5	9	–	–	–	–	–	–
Leather crafts	26	17	9	–	–	–	–	–	–
Hybrid seeds production	21	15	6	–	–	–	–	–	–
All	61	37	24	–	–	–	–	–	–

Note: Children under five are not counted in this table
Source: UNICEF survey

children are not at primary school age (6-12), but attending school at the upper primary and secondary levels. The work of children was done on a voluntary and irregular basis. Parents gave top priority to their study and did not allow children to help with home based work during exams or when school homework had to be done.

In the *Philippines* a third of all children in hbw households are working in hbw – much higher than in the other two South East Asian countries. In fact over a fifth of the younger children and half of the older children are engaged in home based work in the Philippines. Also as in other countries, these are much higher shares than in the CG households. As in other countries, nearly all of the working children in hbw households are engaged in home based work. The proportion of children engaged in all kinds of work is one of the highest for our sample of countries, and comparable to that prevailing in India for both the younger and older age groups.

Thus in the countries studied, while 56 per cent of 5-14 year olds are working in home based work in Pakistan, 26 per cent in India, but only 15 per cent in Thailand, and 12 per cent in Indonesia. However, in the Philippines a third of hbw household children were in home based work.

When compared with the incidence of child labour on a national scale in India, which in 1999 was 12.5 per cent (for 10-14 year olds),[30] child labour in hbw households is much higher. The same would apply for Pakistan, where the child labour incidence on a national basis is 16 per cent. The same applies to Indonesia, where 8 per cent of children in the country were supposed to be working.[31] The incidence of child work in our CGs is very similar to the national incidence of child labour.

■ **6.2 *Schooling***

Conceptually, one would expect four categories of children:
1. only working
2. only studying
3. working and studying, and
4. neither working nor studying.

Work (whether home based or outside the home) here refers to work other than household chores. Table 3a[32] shows the distribution of child status for ages 6 to 10 and 11 to 14.

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30 All data on national child labour incidence for all five countries are based on the World Bank's World Development Indicators (2002) data for 1999.

31 The share of working children in hbw households is nearly 50 per cent in India in our sample in the same age-group, in Pakistan more than 75 per cent, and in Indonesia 29 per cent.

32 In Table 2 the younger age group is defined as 5-10, so that the numbers are comparable with Pakistan. In Table 3 the age groups considered follow UNESCO information on school starting age. Hence, they are different for India, since the starting age for school is 6, not 5 (as in Pakistan). In Indonesia the age range is 7-15.

Table 3a: *Work and study status of child by age and sex (per cent) - hbw households*

INDIA
TOTAL

SECTOR	Age 6 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	3.9	78.4	4.9	12.7	23.9	47.9	11.3	16.9
Bidi (MP+TN)	2.4	70.6	21.2	5.9	14.3	48.8	34.5	2.4
Bidi (MP)	5.4	48.6	37.8	8.1	13.6	38.6	45.5	2.3
Bidi (TN)	0.0	87.5	8.3	4.2	15.0	60.0	22.5	2.5
Zardosi	13.8	48.6	10.1	27.5	48.6	18.9	22.5	9.9
All	*7.1*	*65.2*	*11.5*	*16.2*	*31.2*	*36.1*	*23.3*	*9.4*

MALE

SECTOR	Age 6 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	4.7	79.7	4.7	10.9	30.6	50.0	5.6	13.9
Bidi (MP+TN)	0.0	63.6	31.8	4.5	18.2	50.0	29.5	2.3
Bidi (MP)	0.0	42.1	52.6	5.3	20.8	41.7	37.5	0.0
Bidi (TN)	0.0	80.0	16.0	4.0	15.0	60.0	20.0	5.0
Zardosi	9.6	48.1	3.8	38.5	32.6	26.1	26.1	15.2
All	*5.0*	*65.0*	*11.9*	*18.1*	*27.0*	*41.3*	*21.4*	*10.3*

FEMALE

SECTOR	Age 6 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	2.6	76.3	5.3	15.8	17.1	45.7	17.1	20.0
Bidi (MP+TN)	4.9	78.0	9.8	7.3	10.0	47.5	40.0	2.5
Bidi (MP)	11.1	55.6	22.2	11.1	5.0	35.0	55.0	5.0
Bidi (TN)	0.0	95.7	0.0	4.3	15.0	60.0	25.0	0.0
Zardosi	17.5	49.1	15.8	17.5	60.0	13.8	20.0	6.2
All	*9.6*	*65.4*	*11.0*	*14.0*	*35.0*	*31.4*	*25.0*	*8.6*

Non-hbw Households (Control Group)
TOTAL

SECTOR	Age 6 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	2.6	87.2	5.1	5.1	5.0	60.0	10.0	25.0
Bidi (MP+TN)	0.0	100.0	0.0	0.0	0.0	95.0	0.0	5.0
Bidi (MP)	0.0	100.0	0.0	0.0	0.0	88.9	0.0	11.1
Bidi (TN)	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
Zardosi	2.6	82.1	0.0	15.4	9.5	28.6	0.0	61.9
All	*2.2*	*87.1*	*2.2*	*8.6*	*4.9*	*60.7*	*3.3*	*31.1*

For Pakistan we have information only about children in home based work, and not those children who might be working outside the home. This information is compared to India and Indonesia in Table 3b.

In *India* among the younger children, three-quarters are attending school (as opposed to just enrolled) in hbw households. Among older (or upper-primary level children), the share of children attending school fell[33] (to 59 per cent) – which is exactly as might be expected from the national trend (Table 3a).

Comparing across sectors studied in India, attendance is highest among children of bidi worker households. Dropout was lowest too. The higher share

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33 That is, only studying plus those studying and working.

INDONESIA

TOTAL

SECTOR	Age 7 to 12				Age 13 to 15			
	W	S	SW	N	W	S	SW	N
Pottery	0.0	62.3	30.2	7.5	13.3	53.3	26.7	6.7
Rattan	0.0	86.3	4.1	9.6	30.4	25.0	25.0	19.6
Batik	1.5	85.3	10.3	2.9	26.9	42.3	7.7	23.1
All	*0.5*	*79.4*	*13.4*	*6.7*	*23.6*	*38.6*	*22.0*	*15.7*

MALE

SECTOR	Age 7 to 12				Age 13 to 15			
	W	S	SW	N	W	S	SW	N
Pottery	0.0	63.3	30.0	6.7	17.6	52.9	29.4	0.0
Rattan	0.0	89.5	2.6	7.9	40.0	32.0	4.0	24.0
Batik	0.0	90.9	6.1	3.0	20.0	60.0	0.0	20.0
All	*0.0*	*82.2*	*11.9*	*5.9*	*28.1*	*45.6*	*10.5*	*15.8*

FEMALE

SECTOR	Age 7 to 12				Age 13 to 15			
	W	S	SW	N	W	S	SW	N
Pottery	0.0	60.9	30.4	8.7	10.7	53.6	25.0	10.7
Rattan	0.0	82.9	5.7	11.4	22.6	19.4	41.9	16.1
Batik	2.9	80.0	14.3	2.9	36.4	18.2	18.2	27.3
All	*1.1*	*76.3*	*15.1*	*7.5*	*20.0*	*32.9*	*31.4*	*15.7*

Non-hbw Households (Control Group)

TOTAL

SECTOR	Age 7 to 12				Age 13 to 15			
	W	S	SW	N	W	S	SW	N
Pottery	0.0	88.9	5.6	5.6	11.8	76.5	11.8	0.0
Rattan	0.0	93.9	0.0	6.1	16.7	72.2	0.0	11.1
Batik	0.0	94.1	2.9	2.9	15.4	61.5	15.4	7.7
All	*0.0*	*92.2*	*2.9*	*4.9*	*14.6*	*70.8*	*8.3*	*6.3*

PHILIPPINES

TOTAL

SECTOR	Age 6 to 12				Age 13 to 14			
	W	S	SW	N	W	S	SW	N
Home décor	0.0	74.4	20.5	5.1	8.3	33.3	58.3	0.0
Pyrotechnics	2.3	59.1	36.4	2.3	11.1	33.3	55.6	0.0
Okra	2.4	63.4	29.3	4.9	8.7	34.8	43.5	13.0
Fashion accessories	0.0	66.7	16.7	16.7	19.2	42.3	34.6	3.8
All	*1.2*	*65.7*	*25.9*	*7.2*	*12.1*	*36.3*	*47.3*	*4.4*

MALE

SECTOR	Age 6 to 12				Age 13 to 14			
	W	S	SW	N	W	S	SW	N
Home décor	0.0	66.7	27.8	5.6	6.7	26.7	66.7	0.0
Pyrotechnics	4.2	54.2	37.5	4.2	22.2	33.3	44.4	0.0
Okra	0.0	70.0	20.0	10.0	8.3	25.0	50.0	16.7
Fashion accessories	0.0	75.0	5.0	20.0	15.4	46.2	30.8	7.7
All	*1.2*	*65.9*	*23.2*	*9.8*	*12.2*	*32.7*	*49.0*	*6.1*

FEMALE

SECTOR	Age 6 to 12				Age 13 to 14			
	W	S	SW	N	W	S	SW	N
Home décor	0.0	81.0	14.3	4.8	11.1	44.4	44.4	0.0
Pyrotechnics	0.0	65.0	35.0	0.0	0.0	33.3	66.7	0.0
Okra	4.8	57.1	38.1	0.0	9.1	45.5	36.4	9.1
Fashion accessories	0.0	59.1	27.3	13.6	23.1	38.5	38.5	0.0
All	*1.2*	*65.5*	*28.6*	*4.8*	*11.9*	*40.5*	*45.2*	*2.4*

Note: Ages follow Unesco guidelines.
W = go to work; S = go to school; SW = go to school and work; N = Neither go to school nor work
Source: UNICEF survey

Table 3b: *Work (as hbwers) and study status of child by age and sex (per cent) - hbw households*

INDIA
TOTAL

SECTOR	Age 6 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	2.0	78.4	4.9	14.7	9.9	53.5	5.6	31.0
Bidi (MP+TN)	2.4	70.6	21.2	5.9	8.3	50.0	33.3	8.3
Bidi (MP)	5.4	48.6	37.8	8.1	4.5	38.6	45.5	11.4
Bidi (TN)	0.0	87.5	8.3	4.2	12.5	62.5	20.0	5.0
Zardosi	10.1	50.5	8.3	31.2	43.2	20.7	20.7	15.3
All	*5.1*	*65.9*	*10.8*	*18.2*	*23.3*	*38.7*	*20.7*	*17.3*

MALE

SECTOR	Age 6 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	1.6	79.7	4.7	14.1	5.6	55.6	0.0	38.9
Bidi (MP+TN)	0.0	63.6	31.8	4.5	11.4	50.0	29.5	9.1
Bidi (MP)	0.0	42.1	52.6	5.3	8.3	41.7	37.5	12.5
Bidi (TN)	0.0	80.0	16.0	4.0	15.0	60.0	20.0	5.0
Zardosi	1.9	51.9	0.0	46.2	21.7	30.4	21.7	26.1
All	*1.3*	*66.3*	*10.6*	*21.9*	*13.5*	*44.4*	*18.3*	*23.8*

FEMALE

SECTOR	Age 6 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	2.6	76.3	5.3	15.8	14.3	51.4	11.4	22.9
Bidi (MP+TN)	4.9	78.0	9.8	7.3	5.0	50.0	37.5	7.5
Bidi (MP)	11.1	55.6	22.2	11.1	0.0	35.0	55.0	10.0
Bidi (TN)	0.0	95.7	0.0	4.3	10.0	65.0	20.0	5.0
Zardosi	17.5	49.1	15.8	17.5	58.5	13.8	20.0	7.7
All	*9.6*	*65.4*	*11.0*	*14.0*	*32.1*	*33.6*	*22.9*	*11.4*

PAKISTAN
TOTAL

SECTOR	Age 5 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	27.6	8.8	12.4	51.2	57.5	9.2	19.5	13.8
Carpet weaving	38.4	5.8	3.7	52.1	72.0	5.3	8.0	14.7
Sack stitching	19.0	15.5	25.4	40.1	50.5	3.6	37.8	8.1
Prawn peeling	46.8	1.6	0.5	51.1	70.0	8.0	2.0	20.0
All	*34.0*	*7.4*	*9.4*	*49.1*	*60.4*	*6.2*	*20.4*	*13.0*

MALE

SECTOR	Age 5 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	17.7	13.9	2.5	65.8	12.0	32.0	12.0	44.0
Carpet weaving	26.2	9.5	6.0	58.3	42.3	11.5	7.7	38.5
Sack stitching	10.7	14.7	28.0	46.7	33.3	10.3	41.0	15.4
Prawn peeling	35.2	3.3	1.1	60.4	42.1	10.5	0.0	47.4
All	*23.1*	*10.0*	*8.8*	*58.1*	*32.1*	*15.6*	*19.3*	*33.0*

FEMALE

SECTOR	Age 5 to 10				Age 11 to 14			
	W	S	SW	N	W	S	SW	N
Incense stick making	36.3	4.4	20.9	38.5	75.8	0.0	22.6	1.6
Carpet weaving	49.5	3.0	2.0	45.5	87.8	2.0	8.2	2.0
Sack stitching	28.4	16.4	22.4	32.8	59.7	0.0	36.1	4.2
Prawn peeling	57.9	0.0	0.0	42.1	87.1	6.5	3.2	3.2
All	*44.4*	*5.1*	*10.2*	*40.4*	*74.8*	*1.4*	*21.0*	*2.8*

INDONESIA

TOTAL

SECTOR	Age 7 to 12				Age 13 to 16			
	W	S	SW	N	W	S	SW	N
Pottery	0.0	69.8	22.6	7.5	8.9	64.4	15.6	11.1
Rattan	0.0	86.3	4.1	9.6	19.6	25.0	25.0	30.4
Batik	0.0	86.8	8.8	4.4	7.7	42.3	7.7	42.3
All	*0.0*	*82.0*	*10.8*	*7.2*	*13.4*	*42.5*	*18.1*	*26.0*

MALE

SECTOR	Age 7 to 12				Age 13 to 16			
	W	S	SW	N	W	S	SW	N
Pottery	0.0	70.0	23.3	6.7	11.8	70.6	11.8	5.9
Rattan	0.0	89.5	2.6	7.9	20.0	32.0	4.0	44.0
Batik	0.0	93.9	3.0	3.0	6.7	60.0	0.0	33.3
All	*0.0*	*85.1*	*8.9*	*5.9*	*14.0*	*50.9*	*5.3*	*29.8*

FEMALE

SECTOR	Age 7 to 12				Age 13 to 16			
	W	S	SW	N	W	S	SW	N
Pottery	0.0	69.6	21.7	8.7	7.1	60.7	17.9	14.3
Rattan	0.0	82.9	5.7	11.4	19.4	19.4	41.9	19.4
Batik	0.0	80.0	14.3	5.7	9.1	18.2	18.2	54.5
All	*0.0*	*78.5*	*12.9*	*8.6*	*12.9*	*35.7*	*28.6*	*22.9*

PHILIPPINES

TOTAL

SECTOR	Age 6 to 12				Age 13 to 14			
	W	S	SW	N	W	S	SW	N
Home décor	0.0	79.5	15.4	5.1	8.3	41.7	50.0	0.0
Pyrotechnics	2.3	59.1	36.4	2.3	11.1	33.3	55.6	0.0
Okra	2.4	68.3	24.4	4.9	8.7	34.8	43.5	13.0
Fashion accessories	0.0	66.7	16.7	16.7	19.2	42.3	34.6	3.8
All	*1.2*	*68.1*	*23.5*	*7.2*	*12.1*	*38.5*	*45.1*	*4.4*

MALE

SECTOR	Age 6 to 12				Age 13 to 14			
	W	S	SW	N	W	S	SW	N
Home décor	0.0	77.8	16.7	5.6	6.7	40.0	53.3	0.0
Pyrotechnics	4.2	54.2	37.5	4.2	22.2	33.3	44.4	0.0
Okra	0.0	75.0	15.0	10.0	8.3	25.0	50.0	16.7
Fashion accessories	0.0	75.0	5.0	20.0	15.4	46.2	30.8	7.7
All	*1.2*	*69.5*	*19.5*	*9.8*	*12.2*	*36.7*	*44.9*	*6.1*

FEMALE

SECTOR	Age 6 to 12				Age 13 to 14			
	W	S	SW	N	W	S	SW	N
Home décor	0.0	81.0	14.3	4.8	11.1	44.4	44.4	0.0
Pyrotechnics	0.0	65.0	35.0	0.0	0.0	33.3	66.7	0.0
Okra	4.8	61.9	33.3	0.0	9.1	45.5	36.4	9.1
Fashion accessories	0.0	59.1	27.3	13.6	23.1	38.5	38.5	0.0
All	*1.2*	*66.7*	*27.4*	*4.8*	*11.9*	*40.5*	*45.2*	*2.4*

Ages follow Unesco guidelines.
S = go to school
W = go to work as hbwers
SW = go to school and work as hbwers
N = neither go to school nor work as hbwers
Source: UNICEF survey

of children of bidi workers in school may be due to the activities of the Bidi Workers Welfare Fund, which provides scholarships.[34]

Of all young girls in India in hbw households, two-thirds are studying full-time, the same proportion as all young boys. While 17 per cent of the younger boys are working, 21 per cent of the younger girls are doing so.[35] The proportion (48 per cent) of all older boys working is also much lower than for older girls (60 per cent, see Table 3a). Nearly the same proportion of young boys is in school as young girls. Similarly, there is no gender discrimination in respect of schooling between older boys and girls.

In *Pakistan* among all the countries studied, the proportion of children in school was the lowest. The attendance rate for children of hbw households is much lower than the national gross enrolment ratio for Pakistan (99 per cent for boys and 69 per cent for girls at primary level) (UNICEF, 2001). Only a fifth of all children in hbw households were in school in contrast to 35 per cent of children from the CG households. Most of the older children were actually working.

Table 3b shows a much stronger degree of feminisation of home based work in Pakistan than in India (although there is feminisation of hbw in India as well). Thus, over half of all girls in the younger age groups are working in home based work, while only a third of the boys are. In the older age group 95 per cent of girls are working in home based work, while half of the boys are. Over a third of the older boys go to school, but only a fifth of the older girls do. Most of the children in Pakistan went to madrasahs (Koranic schools).[36]

In all the South East Asia countries, the schooling status of children in hbw households was very different to the South Asian clusters. In *Indonesia* as many as 93 per cent of children between 7 and 12 are in school among hbw households (Table 3a). This is hardly surprising in a country where primary net enrolment rates are 94 per cent for both boys and girls (UNICEF, 2001). We know that the dropout from school increases sharply after primary level. Thus for hbw households, enrolment rates drop to 61 per cent for the 13 to 15 year olds (Table 3b).

The feminisation of home based work is evident in Indonesia as well. Over two-fifths of the older girls are working, while under a fifth of the boys are working in the older age group (Table 3b). A higher proportion of the girls combine schooling with work, but a much higher proportion of the boys are only in school.

Thus children of home based workers are slightly less likely to attend school than children in non-hbw households, and slightly more likely to drop out after primary level than in non-hbw households. In general non-hbw households are somewhat better off economically. From the gender differences

34 In Tamil Nadu, school attendance rates are much higher than in Madhya Pradesh on account of the coverage of the Welfare Fund scholarship scheme. The coverage of the Welfare Fund benefits has been very uneven between states.

35 That is, only working plus those studying and working.

36 In madrasahs they are taught the noorani quaida (basic religious textbook) and use Urdu textbooks.

in child status, it is clear there is a feminisation of home based work, though this is less evident in the case of the Indian sectors examined.

In *Thailand* most children attend school. Only six children among the hbw households are in full time home based work. These children had completed schooling to grade 6 or 9. The children who are working part-time in home based work, helping their families, are also going to school. In fact, 81 per cent of all school age children in hbw households, and 78 per cent in CG households were in school.[37]

When parents were asked to which level you can afford/support your children's education, one-fifth stated they can support their education through college level, and another fifth stated that it is up to the children themselves. It was found that the numbers of children continuing with their education beyond compulsory level is on the rise since the 1997 economic crisis and the government's policy on 'expanding opportunity' for higher education.

In the *Philippines* most of the younger children (in the 6-12 age group) were attending school (ranging from 84 to 96 per cent, varying by sector). Most of the older children (in 13-14 age group) were in school (between 77 and 91 per cent). There appeared to be no significant difference in this respect between the hbw households and the CG households. There is also no significant difference between the incidence of absences from school among children in households with and without home based work.[38] However, according to FGDs part of the children in the community have stopped schooling for different reasons including economic hardship, difficulties in working and studying at the same time, family crisis, or the distance to the school. There are almost no gender differences in schooling for either the younger or older children.

In Section 7 an empirical analysis is done to explore the determinants of child status in relation to work and study.

▪ 6.3 *Neither studying nor working: what are they doing?*

In the child labour literature, the 'neither' category is usually construed as those children who spend most of their time in household chores or the care of siblings. Several observations are possible about this category of children in India. First, about 16 per cent of the younger children, and less than a tenth of older children, are in the neither category (Table 3a). These children are not working (in either home based work or for employers outside the home) nor going to school. Clearly fewer of the older children are in the neither category, since

37 For 6-21 year olds. Unfortunately the Thai study does not disaggregate the data by age, and almost certainly, in the relevant primary and secondary school-age, almost all children are in school.
38 Children in hbw in two sectors (home décor and okra) earn relatively higher incomes, and the incidence of child labour and absences from school are higher; perhaps the opportunity cost of going to school is high, given their earnings from home based work.

they start working in home based work as they grow older. Second, there is not a sharp gender difference among the children in the 'neither' category; only a slightly higher proportion of boys than girls are in this category.

The third observation is that within the 'neither' category the vast majority reported 'not doing anything' (84 per cent of young girls, 77 per cent of young boys, 63 per cent of older girls, and 40 per cent of older boys). However, this is misleading, since the India survey also provides information about the time allocation of children in the 'neither' category i.e. those who are not engaged in work, home based work or otherwise. Their time allocation, outside of sleeping and eating hours, are as follows: averaged across all sectors, roughly 2 hours are spent on assisting in 'food preparation'; another hour or so goes towards 'housekeeping' work; and another half hour each is spent on animal husbandry, fetching drinking water, shopping, and child care. The rest of the time is spent between a series of miscellaneous activities: fuel collection, fodder collection, socialising, personal care or watching television (if available).

In Pakistan, half of the younger children (more boys than girls) seem to be in the 'neither' category – larger than in either of our other two countries (Table 3b). There are two explanations for this apparent phenomena. First, the younger age group is defined as starting at a lower age – 5 years – as compared to 6 in India and 7 in Indonesia, since this is the official starting age for school in these countries. We find in fact, that while the official starting age for schooling is lower in Pakistan, more children tend to start around 6 rather than 5 years of age. Second, some of these children are working for an employer outside the home – particularly the boys (fewer young girls than boys are in the 'neither' category). Among the older children the 'neither' category drops sharply in significance (to 13 per cent overall, almost entirely boys), since most of the children are in home based work. Actually, since the Pakistan data only tell us about children working in home based work (and not about those working outside the home), it is highly likely that some of the 'neither' category children are actually working away from home. As in India and Indonesia, the rest would be engaged in household chores.

In Indonesia, a sixth of older children in hbw households are in the neither category, and less than a tenth of the younger children (Table 3a). For these children, their time is allocated between shopping, ironing, cooking, washing utensils (17 per cent of respondents in 'neither' category), sweeping (21 per cent), mopping (10 per cent), dusting (11 per cent), laundry (11 per cent), and child-minding (19 per cent). In other words, most of these children, most of the time, appear to be engaged in household chores and sibling care.[39]

In the Philippines the proportion of children in the neither category is under 7 per cent.

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39 No information is available in respect of children in the 'neither' category for Thailand and the Philippines.

■ 6.4 *Reasons why children are working/not in school*

In *India* the question asked was not 'why is the child working' but 'why is the child not attending school'. Of those children not enrolled in school, the reasons for their non-enrolment were recorded.[40] In all sectors a very high response was recorded against 'school or studies not interesting' as the reason for not attending school (Table 4). Prima facie, this raises questions about the quality and relevance of schooling. Another important reason given (a fifth of the respondents) is that they cannot afford to send their children to school (Table 4).

In *Pakistan* the responses were mostly indirectly associated with poverty. According to the women interviewed, most of the children were working at home (88 per cent of the responses) to supplement family income. Both mothers and children were asked the reasons why children were not in school. In over three-quarters of the cases, the answer of children and of mothers was that 'school was too expensive' – for both hbw and CG households (Table 4). Two-fifths of both boys and girls in hbw households not enrolled in school indicated a desire to attend a school full-time if given a choice, while others preferred combining school with work or play (24 per cent of boys and girls) (Table 4).

In *Indonesia* a higher proportion of children work in hbw households than in CG households. Thus 14 per cent among younger children and 46 per cent among older children in hbw households work compared to CG households, where only 3 per cent of young children and 23 per cent of older children (W+WS) do so. The higher proportion of working children in hbw households appears to be a function of having income earning opportunities available at home; 'family tradition' was given as an important reason for doing home based work.[41] It is not unusual that when both parents have an income-earning activity or business at home, all members of the family help, including children of all ages. The FGDs show that the primary reason for children working is to pay school fees and earn pocket money. Very few children work without going to school – work and school tend to go together. However, of those not attending school among hbw households (1 per cent of young children and 24 per cent of older children), a third stated that 'lack of money' was the main reason for not attending school (Table 4). Among CG households, 27 per cent of the responses stated 'work' as the main reason why the few older children (15 per cent of children 13-15) were only working. No children from the younger age group were only working (Table 3A). The children's earnings from work, whether directly from employers or indirectly through their mothers, is usually under the full control of the children. They are free to spend it as they think

40 The reasons behind children doing home based work are not dissimilar to the reasons behind non-enrolment. In the zardoshi sector, one important reason for early induction into this work is the desire to pass on a traditional skill; the significant contribution of children's work to total family hours worked reinforces the low attendance in school in this sector.

41 Similar reasons apply in traditional sectors in other countries: incense sticks (in India and Pakistan), garment embroidery (in India), carpets (in Pakistan).

Table 4: Reasons for not sending children to school (per cent)

INDIA Reasons for leaving school

SECTOR	HBW Households										Non-HBW Households				
	Cannot afford	Child working in HBW	Child working outside	School or studies not interesting	Parents attitude indifferent	Child's health reason	Lot of work at home	Care of sibling	Other	Total	Cannot afford	Child working outside	School or studies not interesting	Parents attitude indifferent	Total
Incense stick making	23.9	2.2	8.7	54.3	0.0	6.5	0.0	2.2	2.2	100.0	0.0	33.3	66.7	0.0	100.0
Bidi (MP+TN)	23.8	0.0	4.8	57.1	4.8	4.8	4.8	0.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0
Bidi (MP)	8.3	0.0	8.3	83.3	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0
Bidi (TN)	44.4	0.0	0.0	22.2	11.1	11.1	11.1	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
Zardosi	15.5	18.2	19.1	45.5	1.8	0.0	0.0	0.0	0.0	100.0	84.6	7.7	3.8	3.8	100.0
All	18.6	11.9	14.7	49.2	1.7	2.3	0.6	0.6	0.6	100.0	61.1	13.9	22.2	2.8	100.0

PAKISTAN Why is your child not in school?

SECTOR	HBW Households							Non-HBW Households					
	School is of poor quality	School is too far	School is too expensive	Child prefers to stay at home	Need income from childs work/poverty	Other	Total	School is too far	School is too expensive	School is worthless	Child prefers to stay at home	Other	Total
Incense stick making	1.8	1.8	85.5	1.8	1.8	7.3	100.0	0.0	100.0	0.0	0.0	0.0	100.0
Carpet weaving	0.0	3.1	89.2	0.0	6.2	1.5	100.0	0.0	100.0	0.0	0.0	0.0	100.0
Sack stiching	0.0	0.0	79.5	2.6	2.6	15.4	100.0	0.0	55.6	11.1	11.1	22.2	100.0
Prawn peeling	0.0	1.6	92.2	3.1	0.0	3.1	100.0	33.3	50.0	0.0	0.0	16.7	100.0
All	0.4	1.8	87.4	1.8	2.7	5.8	100.0	9.8	75.6	2.4	2.4	9.8	100.0

INDONESIA Main reason for no schooling

SECTOR	HBW Households							Non-HBW Households					
	Work	No money	Wants to play	Can't study	Don't like school	Other	Total	Work	No money	Can't study	Don't like school	Other	Total
Pottery	9.5	28.6	23.8	0.0	4.8	33.3	100.0	25.0	25.0	0.0	0.0	50.0	100.0
Rattan	9.1	34.1	9.1	2.3	2.3	43.2	100.0	28.6	0.0	14.3	14.3	42.9	100.0
Batik	5.3	36.8	10.5	10.5	5.3	31.6	100.0	25.0	25.0	0.0	0.0	50.0	100.0
All	8.3	33.3	13.1	3.6	3.6	38.1	100.0	26.7	13.3	6.7	6.7	46.7	100.0

PHILIPPINES Main reason for no schooling

SECTOR	HBW Households									
	To earn own money & hh add. inc for food & edu exps	To fund school needs	Need to work or be employed	Help mother and others with the work	To keep us occupied	Prefer this kind of work and find it easy	To increase the earning, spending or savings of child	To learn to be independent	To make parents happy	Total
Home décor	68.8	6.3	0.0	6.3	12.5	0.0	6.3	0.0	0.0	100.0
Pyrotechnics	13.3	20.0	0.0	0.0	6.7	3.3	53.3	0.0	3.3	100.0
Okra	84.2	0.0	0.0	0.0	0.0	10.5	5.3	0.0	0.0	100.0
Fashion accessories	61.9	9.5	4.8	4.8	14.3	0.0	0.0	4.8	0.0	100.0
All	51.2	10.5	1.2	2.3	8.1	3.5	20.9	1.2	1.2	100.0

Source: UNICEF survey

fit – a situation quite different from that prevailing in the South Asian hbw households surveyed.

In *Thailand* of the 305 households surveyed, only two households sent under 14 year old children to work outside the household. In other words, for the vast majority of households in hbw – two agrarian communities (paper products, hybrid seeds) and one peri-urban slum community (leather products) – work was merely a family-based activity, to be undertaken once school was over. Schooling was seen as a high priority, and as many as one-fifth of the parents said they can support their children through college education. Only 3 per cent said that they could afford to support their children only up to primary level.

In the *Philippines*, in the FGD the children explained they were not forced to work. They worked to augment family income, to help parents produce faster, and add to family earnings rather than spend time playing. They also worked for some pocket money and to save for school supplies and clothes.[42] When they were asked whether children should work, the answer was two-sided. On the one hand, they said children should not do heavy work, since they were young and their bodies were not ready for such work. Yet, they said, children should work so they could help their parents.

▪ 6.5 *Contribution of child work and its impact*

There are two issues in respect of the hours that children work: one relates to how it affects their schooling (assuming that they combine schooling with work), and the other how important the work is in terms of its contribution to the total hours worked by the family.

The contribution of children to home based work was estimated based on time spent on work. Table 5a presents the hours worked per day, based on a six-day week, for all children – whether they only work or work and study. In *India* the women worked on average 8 hours per day, six days a week. The younger children on average worked 2.9 hours per day, and the older children 4.3 hours (Table 5a). The average contribution for the three sectors taken together is over 13 per cent of the total number of hours worked by the household members on home based work.

The girls seem to be spending more time on home based work between ages 11-14. Clearly, the older children spend more time at work than the younger ones. If the children are enrolled in school, the number of hours worked would ordinarily interfere with schoolwork (as about 20 hours a week of work is usually seen as being consistent with full time schooling).[43]

Table 5b shows how many hours per week children are working, enabling us to differentiate between children who are studying and those who are not.

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42 This was the FGD at the site of households engaged in home decor production (Rizal province).
43 However, the children engaged in zardoshi work seem to be by far the worst off in terms of hours worked, but the younger boys in the incense sticks sector also work long hours.

Table 5a: *Children working in hbw households: average hours worked by children per day by age group and sex*
(Considering 6 days a week)

INDIA

SECTOR	5-10			11-14			Total	
	Female	Male	Total	Female	Male	Total		n
Incense stick making	0.8	5.0	3.3	4.2	3.7	4.1	3.8	18
Bidi (MP)	3.7	2.3	2.8	2.6	2.5	2.6	2.7	17
Bidi (TN)	0.0	1.7	1.7	3.1	2.0	2.5	2.3	38
Zardosi	2.9	6.7	3.1	5.2	4.8	5.1	4.7	92
All	2.9	2.9	2.9	4.6	3.7	4.3	3.9	165

PAKISTAN*

SECTOR	5-10			11-14			Total	
	Female	Male	Total	Female	Male	Total		n
Incense stick making	4.6	2.8	4.2	6.7	6.0	6.7	5.8	77
Carpet weaving	5.7	3.0	5.4	7.6	6.1	7.3	6.5	77
Sack stitching	3.4	5.0	3.6	4.4	3.7	4.3	4.1	75
Prawn peeling	4.7	3.7	4.3	5.8	5.2	5.7	4.9	74
All	4.7	3.5	4.5	6.1	5.0	5.9	5.3	303

INDONESIA

SECTOR	5-10			11-14			Total	
	Female	Male	Total	Female	Male	Total		n
Pottery	1.7	2.4	2.1	2.5	3.8	3.1	2.7	20
Rattan	2.5	4.7	3.6	3.8	0.0	3.8	3.8	11
Batik	1.5	0.0	1.5	3.0	0.3	2.2	2.0	9
All	1.8	2.9	2.3	3.2	2.9	3.1	2.9	40

Note: *How many hours do you work during a day (day and night)?
Source: UNICEF survey

In India most of the children who are working tend to spend more time at work than children who are studying and working. What is perhaps more important is that among young and old children who are at school, their hours of work are compatible with full time schooling only in bidi (Tamil Nadu). In all other sectors, the hours of work are close to what may be termed as a 'danger zone' with regard to interfering with studies.

One can be certain that over 20 hours of work would interfere with school achievement, since working over 'half-time' can be a risk factor. The direct effects could be due to exhaustion or the diversion of interest away from academic concerns. Also, finding a relationship between time in work and school achievement does not by itself suggest that work is the causal factor that impacts on achievement. The causal arrows may in fact run in the opposite direction.[44] It is possible that the effects of work on learning achievement begin even at 15 hours of work outside the home.[45]

44 For instance, Heady (2000) finds that work has a substantial effect on learning achievement in the key areas of reading and maths in Ghana, but notes that this may be because those children who work are innately less interested in academic achievement.
45 Heady (2000) finds that work has a substantive negative impact.

Table 5b: *Children working in hbw households: average hours worked by children per week by work and study status*

INDIA

SECTOR	6-10		11-14	
	W	SW	W	SW
Incense stick making	28.0	18.0	26.2	21.8
Bidi (MP)	28.0	15.3	14.0	15.6
Bidi (TN)	_	10.0	28.3	8.5
Zardosi	12.8	24.8	32.3	27.5
All	*16.3*	*18.0*	*30.8*	*20.0*

PAKISTAN*

SECTOR	5-10		11-14	
	W	SW	W	SW
Incense stick making	26.4	24.0	41.1	35.4
Carpet weaving	32.9	30.0	45.2	28.5
Sack stitching	22.0	21.0	26.8	24.3
Prawn peeling	26.5	24.0	34.9	18.0
All	*27.0*	*24.8*	*37.0*	*26.6*

INDONESIA

SECTOR	7-12		13-15	
	W	SW	W	SW
Pottery	_	12.6	24.0	17.8
Rattan	_	21.5	27.6	23.0
Batik	_	6.3	37.1	11.8
All	_	*12.5*	*31.3*	*18.3*

Note: Ages follow Unesco guidelines.
W = go to work; SW = go to school and work
*How many hours do you work during a day (day and night)?
Source: UNICEF survey

By this measure, Pakistani children are working far too much. In *Pakistan* women worked an average of about 7 hours on home based work in all sectors. Compared to this, children reported working on average about 5.3 hours per day on home based work (Table 5a). They also worked a six-day week. The children seemed to contribute as much as 43 per cent of the total hours the family devotes to home based work, assuming that there is only one child. Clearly the contribution of the children to family income is much greater in these sectors in Pakistan than in the three sectors in India.

As in India, children in Pakistan who are only working tend to have hours of work per week which are longer than of those children who study and work (see Table 5b). In all sectors, all children, young and older, work hours which are totally incompatible with full time schooling. Based on the responses of the children, one can say that the work interfered with schoolwork for 40 per cent of the children in India and for 47 per cent in Pakistan.

In *Indonesia* on average, female adult home workers were working about

5.2 hours per day, males 6.3 hours. Again, the contribution of children in terms of number of hours worked does appear significant – but only in the case of the older children (who work 3.1 hours a day) – accounting for at least half of adult hours worked. The younger Indonesian children were working fewer hours (2.3 hours) than hbw children in South Asia. There was no evidence that the work interfered with schoolwork, only with playtime (according to the responses). Based on the responses of children, their work interfered with schoolwork for 25 per cent of children.

Table 5b shows that there are no young children in Indonesia who only work; all of them work and study. The young children who work and study do not put in so many hours of work that it is incompatible for them to study. However, in two of three sectors, the older children seem to be in the danger zone, and it is likely that their studies will be affected by the number of hours worked.

In *Thailand* we have seen that the children worked irregularly after school hours on a voluntary basis, without seriously affecting their studies.[46] In hybrid seed production, children contribute their labour in the evening after school, or during weekends. They helped in post-harvest activities like washing, deseeding (the mature fruit) and drying of seeds.[47] In paper products, children helped in light work like picking fresh flowers or cutting the petals for decorating the mulberry paper; or with paper craft such as gluing or pasting coloured paper. Clearly their contribution was quite limited.

In the *Philippines* children 5-18 years of age account for as much as 20 per cent of total household income for two activities (okra packaging in Tarlac, Christmas decoration production in Rizal), and between 8 and 12 per cent in the other hbw activities. The contribution of children to the income of CG households is negligible given that only a few of them are economically active.

During the high seasons among all sectors, children worked between five and six hours per day in hbw activities. During the low season work fell to 1-2 hours per day depending on the sector. As in the other countries, older children spend more time on hbw.

The Pakistani children are therefore working the longest hours, hours that are incompatible with schooling – given that most of them are not in school. The Indian children work more than the Indonesian children. The Thai children are working the fewest hours. Second, at least in India and Pakistan, the number of hours worked per week by working children is likely to have affected their studies. Third, it is not just that a higher proportion of girls is working in all countries, but the girls are working much more than boys – both in the younger as well as the older age group. Finally, the children do seem to be contributing significantly to the total number of hours worked by the family in hbw.

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46 Data on hours worked in home based work were not collected in either Thailand or the Philippines.
47 Some children learned the skill of artificial pollination so as to earn some pocket money.

▪ 6.6 *Work conditions and relationship with contractors/parents*

In *India* about four-fifths of all working children in hbw households work at home. In most cases the relationship of children with contractors is not direct, being mediated by the parents. In bidi (Madhya Pradesh) the contractors discouraged children from coming to fetch raw materials or deliver the finished product. There is an official ban on the use of child labour, and contractors are careful to avoid visibility – a reason why the contractors never have direct agreements or arrangements with children, rather through parents.

Although written contracts do not exist, the relationship with contractors is a long-term one, and there is a high level of stability in the entire structure of production. As markets are expanding in zardoshi and incense sticks, the contractor has an incentive to retain the existing workers. In bidi the unionisation of workers ensures that although the market is shrinking, all card holders receive some work. However, often workers do not have much choice, and are either unable or unwilling to change contractors. The reasons may vary: few alternative work opportunities exist; there is excess supply of labour relative to demand; debt bondage; and delayed payments tie workers down.

In *Pakistan* the contractors generally paid late for the work done and in some cases did not pay at all. They had assisted only one per cent of the women and under five per cent of the children in the treatment of ailments that resulted from hbw. The doctor accompanying the field team assessed the work done by 83 per cent of the boys and 94 per cent of the girls to be 'hard'. Children paid a price for mistakes and in about a tenth of the cases were beaten by the contractor.

In Pakistan the home workers generally believed that the presence of contractors was welcome, because there were hardly any other work options. They did not complain much about the contractors profiting at their expense or at their bad behaviour as the typical employer-employee relationship did not exist between them, and they were related in most cases. The home based workers also believed that the contractors were not much better off than they were. As the contractors belonged to the same community, and were often relatives, people had not taken any collective action for increased wages against them. In some cases, households had taken advance payment and were indebted to the contractors (as in the case of the bidi sector in India). In carpet weaving, home based work in the site selected in Karachi followed the pattern of bonded labour.[48]

48 Adult males take the loans and their children work these off by foregoing a part of their daily wage. The women did home based work and the children worked in poorly lit and ventilated workshops in the vicinity. Once all the children were in the workshop in the morning, they were locked inside and not allowed to go out without the permission of the supervisors. This was done out of fear of the officials of the labour department and of NGOs, who according to them made films and published reports in the international press, which in turn affected the volume of work flowing to the country and the community. While children got fined in the factories for defective work, most said they were not beaten. Most worked a 9-hour day with a one-hour lunch break.

In Pakistan, a very important question was put to the mother: do you feel your children are as well cared for as before despite your work schedule? As many as 71 per cent of women (average across all sectors) answered in the negative; the shares of women who felt this way were similar across all sectors.

In *Indonesia* the children have no direct contact with the contractors. The child homeworkers are likely to work under the supervision of their mothers, suggesting the important role of mothers in socialising and passing on skills to children. Of the 41 children in home based work, only 8 worked for the employer and were paid directly. However, when asked, children expressed a preference for not working with their parents, as working for the employer gave them market wage-rates.[49]

In *Thailand*, as in Indonesia, it appears that the work that children engage in is light.[50] In other words, it appears that the use of child labour in home based contract work is not exploitative, and almost always goes hand in hand with schooling. It is similar to the general situation in agriculture, where children work as unpaid family farm workers with other family members. The difference is that the work was for remuneration and not for own consumption.

In the *Philippines*, the survey asked an open-ended question about the views of the children on home based work. Only 28 per cent responded of which the majority felt that home based work was "burdensome", although they were not against home based work per se; the other responses were similar in that they were "unhappy" about working or "did not want to work". This is consistent with the children's response to a question on the changes they desired in subcontracting work. Over a third said they wanted higher pay or to have regular or more orders from the contractors.

The relationship between the working children and their parents and contractors is a complex one. In India and Pakistan there was clearly an effort by contractors to keep the work of children clandestine and avoid visibility; conditions in some sectors involved debt bondage; but generally the sense of identification of children with household needs is strong. The latter is also the case in Indonesia, Thailand and the Philippines; but here the work seems lighter in most cases, and the relationship with contractors not overly exploitative.

▪ 6.7 *Health*

In *India* across the three sectors studied, about 16 per cent of children working in home based work reported health problems due to work (Table 6). In all sectors some 11 to 18 per cent of the children in home based work seemed to

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49 That children preferred not to work with their parents and preferred to be independent workers was also found in shoes, metal, embroidery, and rattan industries a decade ago (Tjandraningsih and White, 1992).
50 In hybrid seed production, children are mainly engaged in post harvest activities such as washing, de-seeding and drying. In paper products, children helped in such work as picking fresh flowers or cutting the petals for decorating the mulberry paper. Some helped with paper craft such as gluing or pasting coloured paper.

face home based work-related health problems. Most children in zardoshi sector reported problems that were clearly home based work-related – shoulder pain and backache were the most commonly cited problems (as with adult women). In none of the cases was any kind of treatment resorted to, despite awareness of the health problem.[51]

Sudarshan et al. (2001) suggest that it may be difficult to improve the health status of the workers without a holistic approach to the problem. Sector-specific problems like shoulder pain in the case of zardoshi, blistering on the palms because of rolling incense sticks and inhaling tobacco dust while rolling bidis resulting in bronchial problems can be taken care of by means of innovative technology. For example, an improved frame or appropriate seat to minimise or prevent shoulder pain in the case of zardoshi, providing gloves to be worn while rolling the incense sticks, or a nasal filter to prevent bronchial problems are suggested. The issue is: who is to provide these, and how? Without some collective action by workers who organize themselves, neither public action nor any initiative by their employers is likely.

In *Pakistan* the urban slums where these communities lived were highly polluted and without adequate social/physical infrastructure. They suffered many ailments like respiratory diseases, pains in muscles and joints, and serious skin irritations and allergies. In many cases, despite the health impact of the hazardous work, they did not seek any medical attention because of unaffordable or poor health facilities. Often they relied on traditional medicine or expired medicines disbursed by unqualified persons. Table 6 shows the proportion of children currently suffering a disease/ailment. Nearly all the children in hbw households seemed to be ailing. The proportion, though high, for the children from non-hbw households, was under two-thirds. If the response was that they were ailing, the reason ascribed by the household in the vast majority of the hbw households was that it was home based work-related. The survey inquired into the frequency of illness in the past six months; the mean number of times for children in hbw households was 5.2 (or almost once every month) while it was 3.8 for the CG.[52] Only 8.5 per cent of the children in the CG responded that they needed medical treatment but could not afford it, this was the response of 43 per cent of the children in home based work.

The process of making incense sticks (in both India and Pakistan) is hazardous in several ways. Sawdust mixed with various colours and toxic chemi-

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51 However, among the adult women workers, an important difference was observed in the health seeking behaviour of bidi workers and others. None of the incense stick makers, and less than 5 per cent of the zardoshi workers, stopped work temporarily or permanently or even sought treatment. In contrast, over 40 per cent of bidi MP, and over 80 per cent of bidi TN workers, did so. This may again have to do with the availability of health facilities for bidi workers as part of the Welfare Fund facilities.

52 Most of the children in hbw households (73 per cent boys and 62 per cent girls) were not vaccinated, while in the CG households (non-home based work) these proportions were smaller (29 per cent boys and 49 per cent girls). The doctor judged 81 per cent of boys and 72 per cent of girls anaemic among hbw households; their shares were lower among the CG households.

Table 6: *Health of children - hbw households (per cent)*

INDIA Health of Children: Children facing health problems due to HBW

	HBW Households		
SECTOR	No	Yes	Total
Incense stick making	88,9	11,1	100,0
Bidi (MP+TN)	85,7	14,3	100,0
Bidi (MP)	83,4	16,6	100,0
Bidi (TN)	$\bar{}$	$\bar{}$	$\bar{}$
Zardosi	82,5	17,5	100,0
All	84,0	16,0	100,0

a: **PAKISTAN** Health of Children: Does the child currently have a disease/ailment?

	HBW Households				Non-HBW Households		
SECTOR	No	Yes	Total	SECTOR	No	Yes	Total
Incense stick making	2,6	97,4	100,0	Incense stick making	31,8	68,2	100,0
Carpet weaving	1,3	98,7	100,0	Carpet weaving	18,2	81,8	100,0
Sack stitching	0,0	100,0	100,0	Sack stitching	52,0	48,0	100,0
Prawn peeling	5,4	94,6	100,0	Prawn peeling	40,0	60,0	100,0
All	2,3	97,7	100,0	*All*	36,2	63,8	100,0

b: **PAKISTAN** Health of Children: Does the child currently have a disease/ailment? If Yes why?

	HBW Households				Non-HBW Households		
SECTOR	Congenital	Community disease	HBW related	Total	SECTOR	Community disease	Other	Total
Incense stick making	0	18,7	81,3	100,0	Incense stick making	53,3	46,7	100,0
Carpet weaving	0	14,5	85,5	100,0	Carpet weaving	27,8	72,2	100,0
Sack stitching	1,3	14,7	84	100,0	Sack stitching	8,3	91,7	100,0
Prawn peeling	0	8,6	91,4	100,0	Prawn peeling	0	100	100,0
All	0,3	14,2	85,5	100,0	*All*	0	100	100,0

INDONESIA Health of Children: General health problems

	HBW Households				Non-HBW Households		
SECTOR	No	Yes	Total	SECTOR	No	Yes	Total
Pottery	82,8	17,2	100,0	Pottery	87,5	12,5	100,0
Rattan	83,8	16,2	100,0	Rattan	90,9	9,1	100,0
Batik	83,3	16,7	100,0	Batik	78,0	22,0	100,0
All	83,3	16,7	100,0	*All*	85,7	14,3	100,0

PHILIPPINES Have you become sick because of work?

HBW Households

SECTOR	No	Yes	Total
Home décor	71,0	29,0	100,0
Pyrotechnics	72,7	27,3	100,0
Okra	54,0	46,0	100,0
Fashion accessories	50,0	50,0	100,0
All	60,5	39,5	100,0

Source: UNICEF survey

cals is used to make a paste. The paste, normally handled with bare hands, leads to discolouring and injury to the skin. Workers inhaled the dust and toxins causing irritation in the upper respiratory tract that eventually resulted in asthma in many cases. Sitting for two-hour stretches caused the children's feet to hurt and the fieldworkers observed nosebleeds. Faulty work led to beating from the family and/or the contractor and also a fine.

In *Indonesia*, to establish the impact of home based work on the health of children, comparisons were made with three other groups of children: a) children of home based worker households not involved in home based work; b) working children of non-hbw households, and c) non-working children in non-hbw households. The results suggest that home based work cannot be ascribed as a cause of poor health since there is little difference in the patterns of health problems experienced in the preceding month by the various groups of children. The FGD found no major problems stemming from the children's work. The most frequently heard complaint was stiffness from sitting in the same position for too long. These back pains, however, disappear after a rest, though the workers then return to their respective jobs. In the FGDs with children, they said they find more benefits than disadvantages from work; they were not able to define the disadvantages of their work.

In *Thailand* since the children only did limited hours of light work, there was no real issue of health hazard found in the study. However, since children share the same living conditions as parents their health is indirectly affected. For instance, in the leather crafts sector they are exposed to the smell and dust from hide, chemical substances such as tannin used for softening leather, noise and risk from sewing tools. In the hybrid seed sector, children are exposed to chemical pesticide and fertilizer. This was the case especially for girls involved in artificial pollination. However, from the FGDs we learnt that those involved in the pollination were aware of the possible impact from hazardous chemicals and are not allowed to go near the vegetable garden after the crops have been sprayed.

In the *Philippines*, in the hbw sectors (fashion accessories e.g. earrings/necklaces; home decor e.g. Christmas lights/balls/metalcraft; okra production) there appears to be little or no health hazard related to work. Most of the children engaged in packing okra did complain of dizziness when asked what discomfort was most experienced at work. Most of them felt they deserved to be paid a better piece-rate for work. However, there was no doubt that the production of fireworks was hazardous to the health/safety of children, in much the same way as incense stick making was in India and Pakistan.

Thus, in South East Asia, only in the pyrotechnic sector did the child (and other) workers seem to suffer from work-related health hazards. However, while the sectors in South Asia were by no means selected for their health hazards, in nearly all the activities in both regions there were discernible health impacts related to home based work.

▪ 6.8 *Gender and time use of children*

In both *India* and *Pakistan* among the children in hbw households there seemed to be a higher share of girls engaged in home based work than boys. In India a little over half the children in hbw households are girls.[53] In Pakistan it also appears that boys spent significantly less time doing home based work and chores than girls did and significantly more at play and on schoolwork. Other than shopping, girls are relied on more heavily than boys to perform household chores. A higher proportion of boys go shopping, since that requires leaving the house; girls are not encouraged to leave the house. These cultural traits also seem to be reflected in the fact that if girls engage in an income-earning activity, home based work is preferred to working outside the home.

In India the time spent by working children outside working hours appears to be allocated as follows: cooking 1.3 hours, care of sibling/sick 1.5 hours, maintaining the house and outside work one hour each. In Pakistan, the working children spent on average across the sectors, 2.2 hours doing chores, 0.9 hours doing home work, 1.3 hours at meals, and 1.6 hours at play.

In *Indonesia*, there is a gender bias in the employment of children in home based work. The survey found girls more likely to be working. Of the 41 children engaged in home based work, 28 were girls, 13 were boys. In the batik home based work communities, boys are more likely to help their fathers who are fishermen or fruit sellers. Hence, it is unlikely that a boy will be found waxing batik patterns. These skills acquired by the girls during childhood will be very useful after marriage, when social norms require that married women stay at home and take care of the family, while having a skill which they can offer in the local labour market as a secondary source of income. However, both boys and girls were found in the other two home based work industries: weaving rattan for drawers for chests, or shaping painting and packing pottery. If both boys and girls were in home based work, there were no differences between boys and girls in the number of hours worked. More girls than boys, however, were engaged in helping in household chores.

In *Thailand*, until a few decades ago, girls had much less opportunity for education than boys as boys could stay in the monastery and study with monks. Even after a formal education system was established, girls did not attend school as much on account of traditional views on female roles. However, the study notes that this trend was reversed a decade ago and parents value the education of boys and girls equally (61 per cent of responses). Some (8.5 per cent of parents) preferred to educate their girls as daughters tend to maintain close ties with parents even after their marriage. They are often the ones who help support their parents in old age. In terms of time use, both boys and girls spent six hours in the day at school, two hours at play, one for homework and one or two hours helping with household chores.

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53 In zardoshi, three-fifths of the working children are girls. In bidi, over half the working children were girls, while in incense sticks they represent just under two-fifths.

Children spend approximately a quarter of the day at school and about two hours on play and recreation. An hour is allocated for doing homework and reviewing school lessons. The distinction is found in the average time spent on helping with household chores.

In the *Philippines*, the mothers were asked their preferences with respect to the gender of children for home based work. The replies of the respondents were consistent with the actual pattern of the gender distribution of children in home based work. Thus, male and female children were almost equally preferred in two activities (okra, Christmas balls), boys in two (metalcraft, Christimas lights) and girls in one (fashion accessories). As regards the preferences of the women respondents on the gender of children expected to assist in household chores, most (61 per cent) said they preferred girls while only a quarter (28 per cent) expressed a preference for boys. Besides working, children among hbw households spend nearly two hours per day in household chores.

By and large, there are gender differences in all countries in the nature of the work children are doing and time use outside of work. There are the beginnings here of the gender differences that emerge later, and the feminisation of home based work that we commented on earlier. However, in all countries the mothers expressed a desire to see both their sons and daughters in school, though the girls in South Asia may be supported in school for fewer years than the boys.

▪ 6.9 *Voices of children*

Focus group discussions were held not only with the women home based workers, but also the child workers. In *India*, in the zardoshi (garment embroidery) sector (Lucknow) the children spoke in the FGD about long working hours, at times as long as 12 hours in a day. Those who were studying felt that work hampers their studies. They would therefore like their school hours to be arranged so that their working hours are taken care of.

In bidi-making (Tamil Nadu) the younger children said they could devote more time to studies if they did not need to do bidi work. But at the same time, they said, it was not possible to give up bidi work; a minimum specified work, needing two hours each day, had to be done, failing which they were punished. A few of them, meanwhile, were struggling to prove themselves to be good students so that they would also be entitled to a scholarship (like some older children) from the welfare fund.

From the bidi-making children in Madhya Pradesh, two points emerged. One, children started participating in rolling bidis at the age of 10, and stop going to school between 10-15 years of age. Since boys are expected to support their family, they said, their education is taken more seriously. Second, children were drawn into the occupation out of economic compulsion, death or loss of job of the main earner in the family. This observation underlines the need for some form of social insurance for hbw households, which mitigates their vul-

nerability. It also underlines the importance of exogenous shocks to the household – emphasized in our theoretical framework in Section 1 – which lock families into an inter-generational transfer of the child labour phenomenom.

In the incense-stick sector, the girls who came to the FGD said they had been engaged in agarbathi rolling from (on an average) age 5 on. The participants in both the rural and urban FGD were girls since boys normally do not engage in agarbathi rolling. None of the girls wished to continue with this occupation. Those who have discontinued schooling wanted to switch over to tailoring and embroidery while girls still enrolled have ambitions of becoming a teacher. The girls in urban areas were more aware and ambitious since some of them said they wanted to become doctors and computer professionals. Most interestingly, the girls know that their mothers never give the money earned from agarbathi rolling to the fathers. The girls approved of that since they felt that the fathers were irresponsible, and it is the mothers who ultimately take care of the household expenses.

The voices of the children in home based work in *Pakistan* cry out for attention. In carpet-weaving, parents had taken a loan against their children's labour. In the FGD the children said they often worked in the factories while their mothers worked at home.[54] The incidence of physical abuse, especially of children, was very high. When children were asked what they would prefer to do/be in the future, 85 per cent of them expressed the desire to go to school full time. Most of the children wanted to go to school but knew that their parents could not afford that or to give them some pocket money out of their contribution to household earnings. For this reason, some (12 per cent of the children) felt that they needed to work part-time while going to school. Meanwhile, the children going to school complained that they could not concentrate on their homework due to hbw.

In the incense stick sector women did not indicate that there was any physical abuse by subcontractors, but verbal abuse, especially of children, was routine. Most of the children went to madrasahs, since regular schools were not seen to be affordable.

In the prawn-shelling sector, children worked in the shed (warahs) and at home. Contractors preferred that the children worked at the warah since it was easier for them to control the children, push them into working faster and monitor to ensure there is no stealing. For home based work, children fetched the prawns from the contractor and brought them home. Starting from an early age, the children worked long hours. They reached the warahs often at 4 am and continued working until 11.30 am. Children worked similar hours at home because there are no storage facilities and delay would mean that the highly perishable product would spoil. The contractors and their aides physically abused the children. Since a prawn is quite delicate, its tail will break

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54 Women complained of low piece rates and delayed payments by the subcontractors; but they felt that big factory owners, rather than the contractors, were the ones profiting at their expense.

easily during shelling. Children said they could be severely beaten for such a mistake.

In sack stitching, in most cases children fetched the material from the contractors. Since the children were in direct contact with the contractor, they were often exposed to verbal abuse, but no physical abuse was reported. Girls mentioned that only they did the home based work because sewing is only for females. According to the mothers, girls were more easily controlled than the boys. Thus gender stereotyping was taking place at several levels within the household.

In *Indonesia*, three FGDs with children were organized, one in each sector. In batik and pottery industries, most children were working together with friends rather than alone, which enabled them to chat freely.[55]

In rattan, the children work at home with their mothers. The children said that it is not possible for them to work in the rattan factory/workshop because they are not skilled yet and also because they have to go to school. Factory work is a full time job and they cannot go to school.

If given the freedom to choose, the children were asked if they would choose school, work only, or school and work. They preferred school and work, since work gave them an income. They said that if their parents could afford further education, they would continue. If not, they would quit school. But the study found no gender bias in school attendance.

In *Thailand*, two FGDs with children were organized – in saa paper and in the hybrid seed production sectors. In the first, only five girls aged 13-14 showed up. The reason for low participation was that the work involving children was light and limited.[56] But they were allowed to help only at weekends and during school vacations. In the second FGD (hybrid seeds), the 4 girls and 2 boys, aged 12-15, were all attending school. They did not regard themselves as workers. Some said they learnt the skill of pollination from parents and could earn some money by hiring themselves out as pollinators in the neighbours' farm during weekends (earning 100 baht or $2.10 as pocket money). The younger ones (6-11) helped their parents in simple activities at the post-harvest stage, thus earning about 20 baht a day as pocket money.

In the *Philippines*, the children said that they would like to both go to school as well as work. As regards future aspirations, the most common response of 5-14 year old children in home based work was a desire for white-collar jobs. This is true for both boys and girls. The second most common reply was the

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55 "Doing batik alone will make us sleepy and bored. Working together is fun, we can discuss the Indian movie we watched last night on TV. There are always funny stories told by one of us which keep us wide awake. By working together the work can be done faster." In ceramic pottery work, one employer said, "When the children come and work together they are very noisy, and they race to produce more than the other. The result is that I have to check the products carefully and ask them to work finer instead of faster!"
56 The girls said that they cut flower petals as decorations, and also cut, glued and pasted the coloured paper.

desire to finish their studies, a goal that was strongest among girls. Among the 15-19 year olds, getting a white collar job becomes less important, and schooling more a priority. Girls in this age group also expressed an interest in working overseas (given that Filipinos have migrated abroad in large numbers to unskilled jobs). The children also said that their mothers work more than their fathers; fathers have leisure time, drink and make trouble; mothers do not.

7. The Determinants of Children's Work Status and Hours Worked: an Analysis of Survey Data from India, Pakistan and Indonesia

▪ 7.1 *The determinants of child status*

The objective of this section is to provide some empirical evidence on the determinants of child labour. When the data consist of such choice-specific attributes, the multinomial logit model (conditional) is the most appropriate one to be used.[57]

As we saw in Section 1, the status of the child – work only, study only, work and study, or neither work nor study – depends upon various factors:

$$CS_t = f (CC_t, HEhh_t, EEhh_t, v_t) \qquad (t=1)$$

The dependent variable, CS_t is the child status: the probability of being in one of the four states (relative to one such category, e.g. working only).

The independent variables that affect the status of the child are of different types:
- CC is the child characteristics;
- HEhh is the human endowment of the household;
- EEhh is the economic endowment of the household;
- v_t are the external factors to household that may influence the status of the child (not examined here).

The data utilised in the analysis are from the surveys in India, Pakistan and Indonesia. The estimations are carried out for the hbw households only. As mentioned in the methodology section the results are valid at country level for India, for urban/slum areas in Pakistan, and for the Central and West provinces of Indonesia.[58] A multinomial regression is used for estimation of the coefficients for each country separately (Table 7). The comparison category is the status, **child working only**. In other words, working full time is, in our view, the worst possible status for the child. We would prefer the child to be either

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57 Prob $(Yi = j) = e\beta'^{z}ij / \Sigma j\ e\beta'^{z}ij$

Where, j=1,2,…, J for a total of J alternatives (in our case 4 alternatives).

58 For an explanation, see section 2.

studying and working, or studying full time – the latter being the best case scenario. If inter-generational transfer of poverty is to be avoided, the human and economic endowments of the household will need to be enhanced, and exogenous shocks mitigated.

Table 7: *Determinants of child status: results of a Multinomial Logit regression (reference group: working only)*

INDIA no. obs = 562; LR χ^2 (27)= 223.68; Prob > χ^2 = 0.000; Pseudo R^2 = 0.164

Study only	Coef.	Std. err.	z	P>z	dy/dx
Age [of the child]	-0.577	0.070	-8.22	0.000***	-0.0752
Female [dummy for child's gender, female 1]	-0.326	0.268	-1.22	0.224	-0.0313
Edum d [dummy for the mother's education/literacy, yes 1]	0.660	0.305	2.16	0.030**	0.1008
Age dependency ratio [((0-14)+(61-_))/ (15-60)]	-0.050	0.172	-0.29	0.773	0.0132
Income per capita [of household]	0.000	0.000	0.81	0.419	0.0000
Organ [dummy, organisation membership, yes 1]	0.572	0.456	1.25	0.210	-0.0818
Upper cd [dummy for being upper caste, yes 1]	-0.340	0.342	-0.99	0.320	-0.1370
Home owned [dummy, yes 1]	0.696	0.291	2.39	0.017**	0.0526
Exogenous shock (without father) [dummy, yes 1]	-2.076	0.468	-4.44	0.000***	-0.3494
Constant	6.832	0.953	7.17	0.000	
Study and work					
Age [of the child]	-0.247	0.078	-3.18	0.001***	0.0326
Female [dummy for child's gender, female 1]	-0.072	0.310	-0.23	0.817	0.0326
Edum d [dummy for the mother's education/literacy, yes 1]	0.683	0.338	2.02	0.043**	0.0321
Age dependency ratio [((0-14)+(61-_))/ (15-60)]	0.050	0.188	0.26	0.792	0.0198
Income per capita [of household]	0.000	0.000	2.43	0.015**	0.0000
Organ [dummy, organisation membership, yes 1]	1.770	0.464	3.81	0.000***	0.2469
Upper cd [dummy for being upper caste, yes 1]	0.768	0.382	2.01	0.045**	0.1814
Home owned [dummy, yes 1]	0.555	0.339	1.64	0.101	0.0078
Exogenous shock (without father) [dummy, yes 1]	-0.771	0.473	-1.63	0.103	0.0872
Constant	0.951	1.084	0.88	0.380	

PAKISTAN no. obs = 997; LR χ^2 (24) = 424.36; Prob > χ^2 = 0.000; Pseudo R^2 = 0.179

Study only	Coef.	Std. err.	z	P>z	dy/dx
Age [of the child]	-0.170	0.055	-3.11	0.002***	-0.0010
Female [dummy for child's gender, female 1]	-1.924	0.289	-6.65	0.000***	-0.0865
Edum d [dummy for the mother's education/literacy, yes 1]	1.109	0.472	2.35	0.019**	0.0921
Age dependency ratio [((0-14)+(61-_))/ (15-60)]	0.198	0.131	1.51	0.130	0.0096
Chronic poverty [dummy share of food expenditure on tot. yes 1]°	-0.580	0.281	-2.07	0.039**	-0.0331
Collective action [dummy, collective action of hbwers, yes 1]	0.829	0.359	2.31	0.021**	0.0414
Home owned [dummy, yes 1]	0.435	0.315	1.38	0.167	0.0118
Loan burden [loan stock as a share of total expenditure]	-0.001	0.000	-2.19	0.028**	-0.0001
Constant	0.415	0.656	0.63	0.527	
Study and work					
Age [of the child]	0.082	0.044	1.88	0.061*	0.0289
Female [dummy for child's gender, female 1]	-0.576	0.219	-2.63	0.009***	0.0211
Edum d [dummy for the mother's education/literacy, yes 1]	1.220	0.379	3.22	0.001***	0.1914
Age dependency ratio [((0-14)+(61-_))/ (15-60)]	0.091	0.101	0.90	0.366	0.0038
Chronic poverty [dummy share of food expenditure on tot. yes 1]°	0.149	0.214	0.70	0.485	0.0310
Collective action [dummy, collective action of hbwers, yes 1]	1.065	0.270	3.94	0.000***	0.1173
Home owned [dummy, yes 1]	0.644	0.266	2.42	0.016**	0.0429
Loan burden [loan stock as a share of total expenditure]	-0.001	0.000	-3.13	0.002***	-0.0001
Constant	-2.373	0.584	-4.06	0.000	

INDONESIA no. of obs = 321; LR χ^2 (15) = 131.55; Prob > χ^2 = 0.000; Pseudo R^2 = 0.195

Study only	Coef.	Std. err.	z	P>z	dy/dx
Age [of the child]	-1.079	0.195	-5.53	0.000***	-0.0800
Female [dummy for child's gender, female 1]	0.062	0.470	0.13	0.895	-0.1100
Edum d [dummy for the mother's education/literacy, yes 1]	0.903	0.518	1.74	0.082*	0.0500
Age dependency ratio [((0-14)+(66-_))/(15-65)]	-0.749	0.377	-1.98	0.047**	-0.1700
Expenditure per capita [of household]	0.000	0.000	1.72	0.086*	0.0000
Constant	15.025	2.878	5.22	0.000	
Study and work					
Age [of the child]	-0.722	0.197	-3.66	0.000***	0.0400
Female [dummy for child's gender, female 1]	0.898	0.507	1.77	0.077*	0.1100
Edum d [dummy for the mother's education/literacy, yes 1]	1.361	0.592	2.30	0.021**	0.0700
Age dependency ratio [((0-14)+(66-_))/(15-65)]	0.135	0.374	0.36	0.719	0.1000
Expenditure per capita [of household]	0.000	0.000	1.76	0.078*	0.0000
Constant	7.772	2.917	2.66	0.008	

Note: significant at 1% (***), significant at 5% (**) and significant at 10%(*); dy/dx is for discrete change of dummy variable from 0 to 1.
° Dummy for poverty based on the share of expenditure in food items on total expenditure ('chronic poor' > 75% = 1, else =0)

India

We first compare the conditional probability of studying full time with working only: The age of the child is significant; as age increases, the probability of studying full time decreases relative to full-time work. The marginal effect is 7.5 per cent, i.e. as age increases by one year, the probability of working increases (studying decreases) by 7.5 per cent. Having an educated mother increases the probability of the child studying full time by 10.1 per cent. The ownership of a house by the hbw household (i.e. the economic endowment of the household) increases the probability of the child studying full time; the marginal effect of ownership is 5.3 per cent. Exogenous shocks like the death of the father is likely to push the family into employing the child in work; in fact, if the child is without a father, the probability of the child working full time is high, increasing by as much as 35 per cent.[59]

Gender does not seem to affect the probability of studying, as the coefficient is non-significant (even though the sign suggests that girls have less probability of studying full time). The age-dependency ratio is non-significant too (but again the sign suggests that the number of dependants reduces the probability that the child is studying full time). The income per capita and membership of a home based work organization, although non-significant, show a positive sign.[60]

Comparing the conditional probability of working and studying with working only: Age, education of parents, income per capita, organizational membership and being upper caste are significant determinants of the probability of working

[59] The religion of the household (not reported in the regression for comparison among countries) has a significant impact on the status of the child. In particular, we find that among the Hindu households it is more likely that the children will be studying (and working/studying) rather than only working. On the contrary we find that among Muslim households it is more likely for children working rather than studying (and working/studying).

[60] The sign for upper caste is negative, which is counter-intuitive. However, the coefficient is non-significant.

and studying instead of working full time. As the age of the child increases, the child is more likely to work only, rather than work and study. Annual increases in age increase the probability of the child being in full time work by 3.3 per cent. The education of the mother increases the probability (by 4.3 per cent) of the child working and studying, rather than being in full time work. An increase in income per capita also increases the probability of the child working and studying, rather than only working. The marginal effect is, however, low. It appears that the reason for the magnitude of this is that the range in income of the hbw households is rather narrow, and the households are homogeneously poor. The low marginal effect of income per capita is also found to hold for the other two countries.

The membership of a home worker in a home based work organization increases the probability of the child studying and working, rather than being in full time work. The marginal effect is high at 24.7 per cent.[61] Being upper caste also decreases the probability of the child working full time – by 18.1 per cent. On the other hand, obviously, being non-upper caste (i.e. backward caste, scheduled caste, scheduled tribe and other) increases the probability of the child working full time to the same extent.

House ownership and the child lacking a father are very close to being significant, and have the predicted sign. Home ownership, i.e. assets in the household, make it conditionally probable that the child studies and works, rather than only works. The effect of the following variables was non-significant: gender of the child and age-dependency ratio.

Pakistan

Comparing the conditional probability of study only with working as home worker only: The age and gender of the child, the education of the mother, the share of food and loans in total family expenditure, and the participation of adult women workers in collective action have an effect on probability of the child being in school full time (as against working only). As the age of the child increases, the probability of the child studying full time decreases. If the child is female, the likelihood of the child being in school full time decreases (by almost 8.6 per cent). The literacy of the mother increases the probability that the child will be studying full time; in fact, the marginal effect of the mother's literacy is strong, leading to a 9.2 per cent greater probability that the child will study full time rather than work full time. Furthermore, if the home based work family allocates over 75 per cent of its household expenditure to food (indicating how poor it is), and as the share of loan stock in family expenditure increases, it increases the probability of the child working full time (rather than studying full time). Finally, the participation in collective action (to obtain bet-

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61 In India, we had an additional regressor (which we do not have in other countries): non-wage benefits by employers. We found that if the employer offers non-wage benefits (e.g. pension, health services) the probability of the child study and work (rather than only work) increases by 10.6 per cent.

ter piece-rates) by adult women increases the probability of the child studying full time, by 4.1 per cent. Non-participation has the opposite effect.

The age-dependency ratio and ownership of home are non-significant but with the predicted sign.

Comparing the conditional probability of studying and working with working as home worker only: The age and gender of the child, the education level of the mother, membership in a home based work organization, ownership of home, and share of loan stock in family expenditure seem to have an impact on the probability of studying and working. As the child's age increases, the probability also increases of the child studying and working rather than working only.[62] The girl child is highly likely to be working full time, rather than going to school and working. The literacy of the mother increases the probability (by 19 per cent) that the child is not in full time work, but is rather combining study with work. Very importantly, the participation in collective action by home based workers by parents increases the probability (by nearly 12 per cent) of the child studying and working, rather than merely working. Asset ownership (in the form of ownership of home) favourably affects the probability of combining studying with work, and is unfavourable to the child working only; the marginal effect is 4.3 per cent. Also, the higher the share of loan stock in household expenditure the higher the probability that the child will only be working, rather than studying and working.

Age-dependency ratio and the share of food in family expenditure are non-significant.

Indonesia

Comparing the probability of studing only with working only: As in India and Pakistan, the probability of the child only studying decreases relative to 'only working' with age. As in India and Pakistan, the education level/literacy of the mother increases the probability that the child will only study, rather than only work; having an educated mother increases that probability by 5 per cent. The more dependents there are in the home based work family, the less likely that the child will only study rather than only work; the marginal effect is 16.6 per cent. Finally, the higher the expenditure per capita of the household the higher the probability that the child will only study, rather than only work.

Comparing the probability of working and studying with working only: As in Pakistan and India, age increases the probability that the child will both work and study, rather than be in work only. The girl-child is more likely to work and study rather than work only (unlike Pakistan); being female increases this probability by 11 per cent. Again, as in India and Pakistan, the education of the mother increases the probability that the child is working and studying; the marginal effect is 7 per cent. Finally, the higher the household's per capita

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62 This result could be connected to the fact that the age category used is between 5 and 14 years, while in these urban slums children actually only start to go to school around 6 or older.

expenditure the higher the probability that the child will study and work, rather than only work.

▪ 7.2 *The determinants of hours worked by children*

Having examined the determinants of the probability of only studying/working and studying (versus only working), we also explored the determinants of the hours of work put in by children that were working. We assume that hours worked by the child is a function of the following independent variables: age, sex, the fact that the child attends school, the education of the mother, the age dependency ratio, and the expenditure/income of the household.

The Heckman selection model assumes that the dependent variable is not always observed. In our case the dependent variable, hours worked, is observed only if the child works (Ray, 2000; Rosati and Rossi, 2001). The likelihood of working (i.e. if the dependent variable is observed) is a function of other variables. The estimates of Heckman regression models with selection are carried out using full maximum-likelihood.

From the empirical results (Table 8) we can see that the estimates pass the Wald test, and for all the countries the test for ρ and χ^2 are both significantly different from zero. This clearly justifies the use of the Heckman selection equation.

The hours worked increased with increasing age in all countries. Being female meant that you worked longer hours than boys in India and Pakistan (in Indonesia the variable is positive but non-significant). If the child went to school, this reduced the number of hours worked in the three countries.

In India the hours worked by the child fell with an increase in the per capita income of the household. For proxies used for per capita income in Pakistan, we obtained the predicted sign, although the variable was non-significant. The age-dependency ratio is found to be significant and positive in Indonesia, but not in the other two countries.

The education of the mother is non-significant in all three countries, but the sign is the predicted one in all.

8. Policy Implications

If the inter-generational transfer of poverty underlies the phenomenon of child labour in home based work, then policy should address both the human capital endowment and economic endowment of the family, as we saw in Section 1. These two types of family endowments correspond to the two kinds of synergies, the policy implications addressed in the first part of this section relate more to basic services, while later on they are addressed to the synergy between economic growth, poverty-reduction and social services.

However, before we deal with this two-pronged strategy, we would like to summarise the main findings on child labour in subcontracted home based

Table 8: *Determinants of hours worked by children: results of a Heckman selection model regression (with sample selection, full maximum-likelihood)*

INDIA no. obs = 562; Censored obs = 405, uncensored obs = 157, Wald χ^2 (6)= 41.69; Prob > χ^2 = 0.000

HOURS WORKED	Coef.	Std. err.	z	P>z
Age [of the child]	0.726	0.159	4.58	0.000***
Female [dummy for child's gender, female 1]	1.462	0.564	2.59	0.010***
Attending school [dummy for child, yes 1]	-1.297	0.551	-2.35	0.019**
Edum [mother's level of education]	-0.022	0.078	-0.28	0.781
Age dependency ratio [((0-14)+(61-))/ (15-60)]	0.140	0.284	0.49	0.621
Income per capita [of household]	-0.000	0.000	-2.39	0.017**
Constant	-6.998	2.702	-2.59	0.010
SELECT				
Location [urban slum, dummy, yes 1]	0.426	0.135	3.17	0.002***
Household surroundings [dummy: dirty, yes 1]	0.317	0.135	2.35	0.019**
Age [of the child]	0.194	0.027	7.06	0.000***
Female [dummy for child's gender, female 1]	0.458	0.122	3.75	0.000***
Attending school [dummy for child, yes 1]	-0.259	0.139	-1.86	0.062*
Edum [mother's level of education]	0.010	0.020	0.49	0.623
Age dependency ratio [((0-14)+(61-))/ (15-60)]	0.025	0.078	0.32	0.749
Income per capita [of household]	0.000	0.000	-0.86	0.391
Constant	-2.994	0.414	-7.23	0.000
athrho	1.464	0.415	3.52	0.000***
lnsigma	1.305	0.132	9.87	0.000***
ρ (Rho)	0.898	0.080		
σ (Sigma)	3.687	0.487		
λ (Lambda)	3.312	0.714		

LR test of indep. Eqns. (ρ=0): χ^2 (1) = 5.63 Prob>χ^2 =0.0176

PAKISTAN no. obs = 1001; Censored obs = 702, uncensored obs = 299, Wald χ^2 (6)= 151.68; Prob > χ^2 = 0.000

HOURS WORKED	Coef.	Std. err.	z	P>z
Age [of the child]	0.930	0.089	10.41	0.000***
Female [dummy for child's gender, female 1]	3.814	0.496	7.69	0.000***
Attending school [dummy for child, yes 1]	-1.705	0.458	-3.72	0.000***
Edum d [dummy for mother's education/literacy, yes 1]	-0.403	0.781	-0.52	0.606
Age dependency ratio [((0-14)+(61-))/ (15-60)]	-0.042	0.178	-0.24	0.813
Chronic poverty [dummy, share of food expenditure on tot. yes 1]°	0.225	0.364	0.62	0.536
Constant	-10.795	1.307	-8.26	0.000
SELECT				
Location of cluster	0.063	0.030	2.11	0.035**
Loan per child [amount of loan/ children number 5-14]	0.000	0.000	0.87	0.382
Age [of the child]	0.223	0.018	12.12	0.000***
Female [dummy for child's gender, female 1]	0.963	0.100	9.65	0.000***
Attending school [dummy for child, yes 1]	-0.243	0.115	-2.11	0.035**
Edum d [dummy for mother's education/literacy, yes 1]	0.125	0.200	0.62	0.532
Age dependency ratio [((0-14)+(61-))/ (15-60)]	-0.108	0.044	-2.43	0.015**
Chronic poverty [dummy, share of food expenditure on tot. yes 1]°	-0.010	0.091	-0.11	0.913
Constant	-3.172	0.237	13.39	0.000
athrho	1.960	0.248	7.89	0.000***
lnsigma	1.366	0.065	20.88	0.000***
ρ (Rho)	0.961	0.019		
σ (Sigma)	3.918	0.256		
λ (Lambda)	3.766	0.305		

LR test of indep. Eqns. (ρ=0): χ^2 (1) = 21.64 Prob>χ^2=0.0000

INDONESIA no. obs = 321; Censored obs = 237, uncensored obs = 84, Wald χ² (6)= 67.31; Prob > χ² = 0.000

Hours worked	Coef.	Std. err.	z	P>z
Age [of the child]	0.926	0.163	5.67	0.000***
Female [dummy for child's gender, female 1]	0.915	0.647	1.41	0.158
Attending school [dummy for child, yes 1]	-2.443	0.735	-3.33	0.001***
Edum d [dummy for mother's education/literacy, yes 1]	-0.382	0.747	-0.51	0.609
Age dependency ratio [((0-14)+(66-))/(15-65)]	1.356	0.453	2.99	0.003***
Expenditure per capita [of household]	0.000	0.000	-0.50	0.616
Constant	-11.908	2.884	-4.13	0.000
Select				
Location of cluster	0.055	0.070	0.78	0.433
Language of parents [language used, Indonesian dummy, yes 1]	0.473	0.247	1.92	0.055**
Age [of the child]	0.242	0.038	6.40	0.000***
Female [dummy for child's gender, female 1]	0.148	0.163	0.90	0.366
Attending school [dummy for child, yes 1]	-0.344	0.204	-1.69	0.091*
Edum d [dummy for mother's education/literacy, yes 1]	0.020	0.277	0.07	0.942
Age dependency ratio [((0-14)+(66-))/(15-65)]	0.322	0.127	2.53	0.011**
Expenditure per capita [of household]	0.000	0.000	-0.40	0.690
Constant	-4.144	0.629	-6.59	0.000
athrho	2.561	0.804	3.18	0.001***
lnsigma	1.270	0.128	9.93	0.000***
ρ (Rho)	0.988	0.019		
σ (Sigma)	3.561	0.456		
λ (Lambda)	3.519	0.503		

  LR test of indep. Eqns. (r=0): χ² (1) = 13.28 Prob> χ² =0.0003

Note: significant at 1% (***), significant at 5% (**) and significant at 10%(*)

° Dummy for poverty based on the share of expenditure in food items on total expenditure ('chronic poor' > 75% = 1, else =0)

manufacturing in Asia. First, hbw is a secondary source of income for most households we interviewed in South Asia and South East Asia. Despite the additional income, a high proportion of the hbw households in the South Asian clusters were still below the national poverty line. However, this was much less the case in the South East Asian clusters we examined. Second, child labour exists – though to a much lesser extent – even in countries where primary schooling is almost universal (i.e. the South East Asian countries), and where poverty is lower. Third, except in Pakistan, most of the young children do not 'only work'; they work and study or only study. Fourth, more of the older children in hbw households tend to work than in CG households and that incidence is also higher than the national incidence for child labour in a similar age group. Fifth, there is clear evidence of the feminisation of hbw from childhood. Thus, more boys are in school than girls, more girls are at work than boys, and the hours worked are greater for girls than for boys. These are trends that we also know about as far as hbw and adult women are concerned. Sixth, we found that the contribution of children who worked in hbw households was considerable in all countries except perhaps Thailand.

Considering that child labour in hbw has been quite invisible until now, we would like to establish that as far as policy is concerned, legislation banning

child labour in home based work is clearly not the realistic way forward. The legislation in India and Pakistan banning child labour (in India the Child Labour Prevention and Regulation Act, 1986, and in Pakistan, the Employment of Children Act, 1991) applies principally to children under 14 years working outside the home in particular activities or industries, and does not include work on the family farm or home based work. In fact, no law in India or Pakistan covers the employment of children in the agricultural sector or the informal economy (which usually employs less than ten workers).

If the process of the elimination of child labour in the now industrialized countries at a comparable stage of development is anything to go by, child labour laws (e.g. the 1833 Factory Act in Great Britain) did have a substantial effect on the amount of child labour and their conditions of work. However, they could operate effectively only in what is now called the formal sector of the economy, and ignored the informal sector where child labour conditions were much worse (Cunningham and Viazzo, 1996). We have emphasized in this paper, in fact, that most child labour in contemporary developing economies is predominantly in the informal economy, including home based work.

A critical element in the first prong of the strategy proposed here is essentially a functional public school system. It is well established in the child labour literature that unless elementary schools of reasonable quality are functional, there is little likelihood of a decline in the incidence of child labour. An overwhelmingly important fact emerging from the studies is that the vast majority of children in the middle-income South East Asian countries we examined are in school – whether they work or not. An ideal long-term goal is that all children are in school and do not work. However, in the medium-term, that is not a realistic goal at least in India and Pakistan, nor perhaps in Indonesia and the Philippines.

To ensure that all children attend and complete elementary school (i.e. at least to the age of 14 or grade 8) is the responsibility of the state. However, in many low-income countries of South Asia that goal may remain unachievable in the absence of official development assistance (Delamonica et al, 2001). Yet, the difficulty is that while donor assistance seems to be plentifully available on issues related to child labour, ODA on basic education has been roughly constant through much of the 1990s (Mehrotra, 2001).

Our studies are suggesting that schooling is of poor quality particularly in India and Paksitan, even if accessible in urban areas, and we know from other literature that access itself is poor in rural areas (at least in India and Pakistan). The emphasis needs to be on improving quality in urban areas, and improving both access and quality in rural areas in South Asia – and to make it affordable, since cost has been cited as an important disincentive. Most children in Pakistan (and one sector in India) were going to Koranic schools, not regular schools, and hence receiving very little non-religious instruction. Girls in both

South Asian countries needed special incentives to be sent to school, according to the regression results. However, it is obvious that in the South East Asian country cases, despite the fact that children (in hbw households) are working (as much as a fifth in Thailand and Indonesia) they are still going to school. Cultural differences do not account for much here in the case of the South East Asian countries: Thailand is predominantly Buddhist, Indonesia is largely Islamic, while the Philippines is largely Catholic. Public policy, however, is to achieve universalised schooling, whether in rural or urban areas, and remains affordable even in the wake of the economic crisis.

If the synergy between interventions in the basic social services is to be triggered, universal schooling alone will not ensure that hbw households send all their children to school. Our theoretical framework for enhancing human capabilities for the household and reducing child labour suggested the need for simultaneous interventions in primary health care – as a means of directly reducing ill-being and indirectly as a means of reducing child mortality and thus inducing fertility decline through behavioural change. Our studies found that the largest proportion of children in the age-group 6-14 that were working among hbw households were from the largest households.[63] They also noted either the lack of health services or their unaffordability.

Effective delivery of basic services is a sine qua non, but not a sufficient condition for reducing child labour. The vulnerability of families working in the informal sector needs to be addressed, if exogenous shocks (e.g. the death of a father) are not to force children into work at the expense of schooling. It is necessary to promote the well-being of children in home based work through interventions which affect the families of which they are part, i.e. to promote the second set of synergies.

We turn now to the more complicated issues of how to promote the well-being of children in home based work through interventions which affect the families of which they are part, i.e. to promote the second set of synergies.

What this analysis very strongly reveals is the dual character of subcontracted home based work, at the micro (household) level as well as at the macro-level. This dual character is contradictory: on the one hand, it is an important source of income for the home worker households; on the other hand, the conditions of work, the low rates of pay, the close to poverty-line existence of the worker households, all call out for much greater public intervention to protect the households. At the macro-level, forces are at work strongly encouraging the growth of subcontracting. If the synergies (discussed in Section 1) are to be realised, then public action needs to recognise both the efficiencies as well as the inefficiencies of subcontracting.

Three major policy implications from the preceding findings seem to

63 Thus, the Pakistani households were the largest, and also had the highest proportion of children working; the South East Asian households were the smallest, and had the lowest proportion of children working; the Indian households were somewhere in the middle in respect of both variables.

emerge and can be summarised in three words: registration, protection and promotion.

A defining characteristic of work in the informal sector is its invisibility to the policy-maker, stemming partly from its immense diversity. Invisibility, however, is not its natural fate, since informal sector workers form the majority of those in the labour force defined as those between 15 and 65. Those under 15 are working mostly out of the home, which does make them more invisible. Invisibility arises primarily from the fact that until recently, national statistical systems were not counting the informal sector in either their household or enterprise surveys. That pattern has been broken in the last 15 years or so, with some 60 plus countries having conducted surveys focusing on the informal sector. However, within the informal sector the phenomenon of home based work is not being counted. National sample surveys covering the home based worker are a very limited and extremely recent phenomenon. Even the Indian survey of 1999 (on informal non-agricultural enterprises) only had a few questions about home based work. Pakistan has no such survey. Within the next five years this situation needs to change drastically if the invisibility of home based workers within the informal sector is to be mitigated. Questions in the survey in future must attempt to capture the phenomenon of child work as unpaid family labour.

However, counting on sample surveys is not sufficient; it is an important tool for policy making, and for advocates to engage in policy dialogue with government policy makers. What is equally, if not more, important is that all home based workers are *registered*. For the worker's well being, this is of more immediate and direct importance. It is also consistent with the ILO Recommendation on Home Based Work (a companion to the Convention). Naturally, only adult workers can be registered, not children. However registration will bring benefits to the whole family, including children. This could take one of several forms: the issuing of identity cards (as happens in the bidi-making sector in India for example) or the creation of a registration board (as proposed in the Pakistan study). The latter would involve the registration of the subcontractors as well. Once the workers have an identity they can at least claim some benefits – as we discuss below. All workers, including those who work on a part-time basis, should be registered, given that for many home based workers, this kind of workforce participation is undertaken largely by women who have other reproductive responsibilities.

The second policy implication emerges from the need to protect all those engaged in the informal sector manufacturing activities. The same mechanism for protection that we propose here could also apply to agricultural products and hence to the agricultural sector. The Philippines already has such a Welfare Fund in the agriculture sector for plantation workers. However, the mechanism for those who work in the service sector would be trickier, and hence could be more difficult to implement. We saw in Section 2 that the need for reducing

fertility is a very important reason for ensuring old-age security and current income stability in the lives of the poor. Sector and even product-group specific Welfare Funds, financed mainly from a tax on the product, could be a significant way forward for all informal sector-manufacturing activities. The state of Kerala (India) has 27 such Welfare Funds – all in the informal sector.

We have already seen that in the case of bidi-making in India – an informal sector activity par excellence – a Welfare Fund has been in existence. Similar welfare funds exist in India for mica mines, for iron/manganese/chrome ore mines, building and other construction workers, and cinema workers. These funds levy a tax on consumption or export of the products.[64] These funds provide several kinds of similar benefits, though here we dwell specifically on those available to bidi workers. There are public health and sanitation and medical facilities e.g. the Fund runs hospitals, a scheme for the reservation of beds in tuberculosis hospitals, maternity benefits, and provides spectacles. Group life and disability insurance is provided, the premium for which is equally shared by the Beedi Workers Welfare Fund and the Social Security Fund of the government of India. There are educational schemes e.g. financial assistance to purchase uniforms, slates, notebooks, and textbooks; scholarships for children from class 5 onwards; a scholarship based on school attendance by girls; and a lump sum to be given on passing board exams from class 10 onwards. The proposed national policy on home based workers formulated by the government of India's Ministry of Labour is advocating the widespread use of such welfare funds.

We believe that Welfare Funds must at a minimum provide the following benefits:[65]

1. specific health benefits, related to the nature of work of home based workers, including maternity benefits;
2. scholarships for children to go to school;
3. old-age pensions;
4. life insurance;
5. child care facilities.

The Welfare Fund could only become operational if the welfare fund registers the workers, contractors and subcontractors. But each of the welfare functions is a critical element in a system of support for informal sector workers in a particular sector. Catastrophic out-of-pocket health expenditures by

64 The construction workers fund is financed by the contributions made by beneficiaries, levy of tax on all construction works at rates between 1-2 per cent of the construction cost incurred by an employer and non-mandatory grant/loans by the central/state government.
65 Eventually the kind of facilities that are offered should be the choice of the workers themselves, since the higher the benefits the larger the tax that will have to be levied. Inevitably, the facilities will vary depending upon the country and sector, but we believe that the facilities we list should be a minimum component.

poor households make all the difference between living below or above the poverty line. Functional, affordable schools of reasonable quality offer an alternative to children who would otherwise work full time; welfare funds have been used to provide scholarships which could make all the difference between a child attending or not attending school. The child care facilities on a community basis that can be organized through the auspices of a welfare fund would allow mothers to work, enabling them to join the labour force from home, which may otherwise not be possible. Child care would offer another advantage: girls who cannot go to school because they have to look after younger siblings while the mother works would be enabled to go to school. The old-age pension benefits would compensate, even if only partly, for the 'children for old-age security' argument for high fertility. Finally, the life insurance scheme would again cover the family in the case of a death or disability of a key breadwinner in the family.[66]

The political economy of financing of such a fund is critical to its creation in the first place, and its sustenance thereafter. Given the wide diversity of goods produced in the informal sector, and the workers' consequent fragmentation and lack of organization, and the large size of the informal sector workforce, it is unrealistic to expect that the government would be willing to finance such a large number of sector-specific funds. The government may well be persuaded to provide some funds, but its most important role has to be to organize the creation, and the regulation, of such a fund, and ensure a product-based tax is collected and reserved exclusively for the Fund. The tax has to be collected from the factories which subcontract the work, or where factories are not involved, the wholesalers responsible for marketing the product. Any products that are exported provide an additional opportunity for collecting the tax at the border. The tax has to be calibrated to meet the needs of the Fund. For example, the tax on bidis in India is a bare Re 0.50 on 1,000 bidis, which is extremely low, and perhaps accounts for the fact that the coverage of the fund is not universal for all bidi workers. The India study found that in many areas bidi workers were unaware of the existence of the fund.

Just as the political economy of financing such funds is important, so is the level of organization of the workers a pre-condition for the creation of such funds. The regression results showed that membership of a home based work organization by the home based worker was a determinant of whether the child would be working full time, or studying and working. Such funds are unlikely to be created by voluntary governmental action in a situation where workers in the informal sector have little or no voice of an organized nature. We should note two other features of home based work that favour organization: clustering of activities and the stability of relationships with subcontractors. Hence

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66 SEWA is already offering such insurance to many of its members. For a discussion, see Sinha (2001), though premiums are paid only by the workers.

the role of non-governmental organizations in bringing together such workers is paramount, as is helping to broker agreement between the government, employers/contractors and the workers.[67]

The final policy implication relates to the promotional role of the government to support the productive activities of home workers.[68] The promotional function should essentially involve a) certification of skills; b) training (especially, but not only, in design); c) assistance with marketing; d) the provision of credit, especially savings-credit schemes. It would also involve the provision of infrastructure services such as water, electricity and roads. These are roles that rightly belong to the government, particularly local government. With such support, it is possible that subcontractors could graduate into micro-entrepreneurs, and home based workers into subcontractors – setting in motion an upward spiral of income growth and poverty reduction at the level of the cluster or local economic system.

67 Such NGOs are already very active in many of the countries we studied, and were partners in this research. The network of NGOs (Homenet International) was, in fact, responsible for the creation of the ILO Convention on Home Based Work in 1996.
68 In Thailand, in particular, the government seems to have played a strong role in promoting the marketing and export of goods produced through subcontracting.

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Child labour is widespread in home based manufacturing activities in the informal sector in most developing countries. This form of child labour will not attract the penal provisions of a country's laws banning child labour. This paper draws on surveys carried out in five Asian countries – two low-income (India, Pakistan) and three middle-income countries (Indonesia, Philippines, Thailand) – where production of manufactured goods is subcontracted to home based workers widely. It examines the incidence of child work in such households, the child's schooling, reasons why children are working, their work conditions, their health, and gender issues.