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## ActionAid's research signature:

'People-centred evidence with women and girls at the core, combined with knowledge from in and outside the organisation, enables power shifts. This brings about changes at local, national and international levels'.

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Needless to add the study team is responsible for any remaining gaps and shortcoming in this work.

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# 1 / INTRODUCTION

Food insecurity, a persistent problem in a large number of developing countries, has been at the core of policy discourses in the recent years. As is well known the World Food Summit 1996, defined food security as access to sufficient, safe, nutritious food to maintain a healthy and active life and such a conception has become a standard benchmark in the discussions, even though its multi-dimensional attributes and their causal correlates are complex issues. However, if one goes along a simplistic notion visualised as some calorie threshold, ensuring food security net for all, remains a daunting challenge. The least developed countries, of course, are worst affected with respect to most indicators of food insecurity, hunger and malnutrition.

The budgetary investments (public expenditure) towards agriculture and rural development crucially impact the overall growth of the economy, alongside ensuring agricultural development and reducing the incidence of absolute poverty and food insecurity. It is also quite clear from the recent literature that well-designed public policies towards provisioning of social protection/ security in general and policy measures to smallholder agriculture can be critical in reducing hunger and malnutrition, both at the individual and household level (Jha 2014)<sup>4</sup>.

Given the context, the primary objective of the present study is to focus on tracing the broad trends and patterns of public provisioning on agriculture sector in both the countries i.e. India and Vietnam and compare the same since early 2000s, locating public provisioning for small holder agricultures at the centre. Since the study would try to focus on Vietnam and India with an overview of issues within South and East Asia, attempts are made to assess public policies pertaining to public investment in agriculture in Vietnam and India in particular. Given the diversity and functioning of governments both

in India and Vietnam, which are quite different, an attempt is made to develop a method in clubbing public investment and/or expenditure data for agriculture sector specifically focusing on small holder agriculture.

A preliminary analysis of the available data across the countries shows that public support in terms of public expenditure for agriculture and its allied activities is inadequate. Within the overall public support to agriculture sector, priority of public expenditure towards small and marginal farmers seems to be quite inadequate. In nutshell, it can be said that targeted public investments in backward and forward linkages in agriculture sector of these economies can greatly enhance the prospects of increasing productivity as well as food security, aided by improvements in infrastructure and crop-insurance. Recent experiences have shown that public provisioning in risk mitigation strategies played an important tool both in promoting economic growth and in ensuring that this growth contributes reduction in poverty and hunger.

This policy brief is the result of desk as well as field research. The desk research focused on available secondary data and literature and the field research was based on a detailed questionnaire and Focused Group Discussions (FGD). Considering that agriculture related policy can be different for different states/provinces, the survey covered different locations. In Vietnam the survey was conducted in Thong Nong district of Cao Bang province, Quan Ba district in Ha Giang province, Vung Liem district in Vinh Long province and Eakar district of DakLak province. In India, the survey was conducted in Andhra Pradesh, Jharkhand, Odisha and Uttar Pradesh. The survey targeted only small land holder farmers (households with land of size less than 2 hectares). The findings of the field study are given in later sections of the policy brief.

<sup>4</sup>Jha, Praveen (2014): *Public Provisioning for Social Protection and Agriculture: Some Implications for Food Security*, Centre for Economic Studies and Planning, Jawaharlal Nehru University (Mimeo), New Delhi.

## 2/ SIGNIFICANCE OF FOOD SECURITY AND PUBLIC PROVISIONING

The issue of food and its importance for overall well-being was first taken up by the world leaders after the World War I. In 1935, the report on Nutrition and Public Health by the committee of League of Nations reported the acute shortage of food in the poor countries. Later Food and Agriculture Organization (FAO) was established in 1945. After the World War II, different nations of the world decided to strengthen the agricultural sector in order to eliminate food insecurity. FAO started the World Food Survey in 1946 and reported that at the end of 1945, one third of the world population was undernourished. In 1960, United Nations (UN) established the World Food Programme (WFP) to facilitate transfer of food from Food Surpluses to Food Deficit people/region through UN system.

It may be useful to note here that until the 1980s, in most official discourses, “food security” was conceived as a simple-minded supply side notion, pegged to the production level, and there was a significant shift in 1983 when FAO adopted a fresh resolution ensuring physical and economic access to basic food by all people at all the time. In 1996, FAO redefined the notion of food security and described basic food as, “safe and nutritious food

which meets dietary needs and food preferences for an active and healthy life. In 2002, the term “social access” was also added in the definition.

As mentioned above, the definition of Food Security accepted by FAO has four dimensions; 1) Availability, 2) Accessibility, 3) Utility and 4) Stability. Making food available is the first step towards eradicating hunger. Accessibility refers to ability of the people to command food available in the society. The accessibility of food includes physical accessibility, economic accessibility and social accessibility. The physical accessibility refers to availability of food at the location where people actually need it. The economic access means that people have the financial ability to acquire food on regular basis. It may be possible that food is physically and economically accessible, but due to some socio-cultural barriers, people of certain social background or gender etc. cannot access it. Thus, food security does not have only physical and economical but also social dimensions. Food utilisation is the third aspect of the food security, which refers to a framework to absorb safe and nutritious food. Stability, the last dimension of food security, refers to ensuring food at all the time.

## 3/ A PROFILE OF FOOD SECURITY INDICATORS AND CORELATES: VIETNAM

Vietnam has achieved considerable success in most of the food indicators since 1990. Percentage of undernourished population declined from 32.1 per cent in 1990-92 to 11.4 per cent in 2012-14 and is expected to decline to 10.3 per cent by 2014-16. Per capita calorie food deficit declined from 368kcal to

95kcal during the same period. Even after achieving on most of the indicators, 21.4 per cent of the population suffers from inadequacy. Irrigation for the arable land has also increased from 53 per cent to 71.7 per cent by 2010-12.

**Table 1: Information on Food Security Status from 1990 to 2016**

Year	Total population (millions)	Percentage of population undernourished	Depth of the food deficit (kcal/capita/day)	Prevalence of food inadequacy (per cent)	Per cent of arable land equipped for irrigation
1990-92	70.4	32.1	368	55.6	53.7
1991-93	71.9	32.2	356	55.1	53.7
1992-94	73.3	30.3	319	51.9	54
1993-95	74.7	28.3	285	48.9	54.9
1994-96	76	26.9	261	46.8	55.7
1995-97	77.1	27	254	47	56.2
1996-98	78.2	27.4	254	47.5	57.1
1997-99	79.1	26.9	247	46.6	57.7
1998-00	80	25	228	43.4	58.5
1999-01	80.9	22.7	206	39.6	58.4
2000-02	81.7	20.7	188	36.3	58.4
2001-03	82.5	19.2	173	33.7	59
2002-04	83.4	17.8	160	31.3	61.3
2003-05	84.2	16.7	150	29.3	65.9
2004-06	84.9	16.1	144	28.1	69.8
2005-07	85.7	15.9	141	27.5	72.5
2006-08	86.6	15.4	137	26.6	72.9
2007-09	87.4	14.7	129	25.4	73
2008-10	88.2	13.7	119	23.8	72.6
2009-11	89.1	12.9	110	22.4	72.1
2010-12	89.9	12.2	103	21.4	71.7
2011-13	90.8	11.8	99	20.6	NA
2012-14*	91.7	11.4	95	19.9	NA
2013-15*	92.5	10.9	89	19	NA
2014-16*	93.4	10.3	83	17.9	NA

Source: compiled from Food Security Indicators of FAO, accessed on 22 October, 2015. \*Estimated

Vietnam economy has also been successful in delivering the basic services to the population in terms of access to clean drinking water and sanitation facilities. The percentage of population having access to improved water sources has increased from 61.5 per cent in 1990 to 95 per cent in 2012 and at the same time, percentage of population having access to sanitation has increased from 37.4 per cent to 75 per cent. The percentage of pregnant women suffering from the problem of anaemia has also declined but as of 2011, 23.5 per cent of the pregnant women still suffer from anaemia. Also the prevalence of the anaemia among the children (under five) has declined but remained as high as 31.3 per cent by 2010-11. Although a lot has been achieved in terms of food security indicators, there is a long way to go.

**Table 2: Information on GDP and Public Services from 1990 to 2013**

Year	GDP per capita (in purchasing power equivalent) (constant 2011 international \$)	Percentage of population with access to improved water sources	Percentage of population with access to sanitation facilities	Prevalence of anaemia among pregnant women (in per cent)	Prevalence of anaemia among children under 5 years of age ( in per cent)
1990	1501.1	61.6	37.4	49.1	53.8
1991	1561.6	63.2	39.1	48.1	52
1992	1666.7	64.8	40.8	47.1	49.9
1993	1770.4	66.5	42.5	46	47.9
1994	1894.7	68.1	44.2	44.9	45.9
1995	2041.8	69.6	45.9	43.7	44
1996	2197	71.2	47.6	42.4	42.1
1997	2339.3	72.8	49.2	41	40.2
1998	2436.5	74.3	50.9	39.6	38.5
1999	2514.8	75.9	52.6	38.1	37.1
2000	2649.7	77.4	54.4	36.6	35.8
2001	2778.4	79	56.1	35.2	34.7
2002	2919.9	80.5	57.8	33.9	33.7
2003	3085.3	82.1	59.5	32.6	33
2004	3278.4	83.6	61.3	31.4	32.3
2005	3484.9	85	63	30.2	32
2006	3687	86.5	64.7	29	31.5
2007	3907.3	88	66.4	27.8	31.3
2008	4084.8	89.4	68.1	26.6	31.1
2009	4260	90.9	69.9	25.5	31.1
2010	4486.3	92.3	71.6	24.4	31.1
2011	4717	93.7	73.3	23.5	31.3
2012	4912.3	95	75	NA	NA
2013	5124.6	NA	NA	NA	NA

Source: compiled from Food Security Indicators of FAO, accessed on 22 October, 2015

There is ample literature which suggests that public provisions for agriculture and allied activities with a particular focus on small and marginal farmers have the capability to address all four dimensions of food security. Public policies directed towards nutritious crops can address the utility as well as physical accessibility of food. By making an apt balance between short and long term investment in agriculture, the stability dimension can also be addressed.

However, across the world, there is declining trend of public investment in agriculture. Agricultural spending as a percentage of agricultural GDP declined across all regions from 1980 to 2000, and is extremely low in developing countries compared to developed countries. In 2005, percentage of expenditure towards agriculture in total GDP stood at fourth position in terms of priority of expenditure after education, social security and defense in Asia. There had been a global slowdown in the rate of accumulation of capital stocks in primary agriculture. In developing countries like India and Thailand, investment in agriculture has increased in absolute term but declined when it is computed as a share of total investment. In many developing countries public investment has been stagnated in rural areas and its share in total agricultural GDP, and as a share of total government spending, shows a falling trend (Fan and Rao 2003). Given such growing indications and concerns about the role and effectiveness of public expenditures in stimulating sustained growth rates and poverty reduction, it is believed that developing the agriculture sector requires a coordinated strategy that involves a sound policy environment and well-targeted major investments over time. It is worth highlighting that adequate public investment can result in increasing the growth rate of the agricultural sector and make the latest technologies available to the farmers.

With the policy objectives of achieving food security, reducing poverty and improving rural economies, many countries in the World have adopted economic frameworks which prioritise large scale mechanised agriculture over small scale farming system in the belief that the former are more productive and efficient. Since the early 1980s, in most developing countries smallholders are confronting increasing disadvantages through a variety of mechanisms and processes built into

domestic and global macroeconomic regimes. This has had serious adverse implications for addressing the problems of poverty and food security. As hinted earlier, recent policy thrusts have been biased against agriculture sector and within agriculture it has focused on large scale farms (Biodiversity 2012). Nonetheless, within the agricultural sector, small-scale farmers continue to play important roles in promoting an ecologically rational and socially just food system.

Poverty, hunger and malnutrition are still among the serious challenges that the world community is facing. Although a lot has been achieved in the recent past but still there is long way to go. The decline in the poverty and undernourishment varies greatly across the regions and countries. There are 1.4 billion people in the world who are extremely poor<sup>(2)</sup>, out of which an estimated 70 per cent live in rural areas and depend partially or wholly on agriculture (Committee on World Food Security, 2013). Therefore to reduce poverty, there is urgent need to give due importance to smallholder agriculture. This is particularly important in a context where almost 65 per cent of the global population and close to 80 per cent of the population in developing countries do not receive any support from the government in terms of any social protection programme/scheme (World Bank 2015).

It is important to emphasize that for most countries in the developing world, well-functioning smallholder agriculture is key foundation for food security. The neoliberal globalisation has unleashed several adverse processes for them through trade (such as unpredictable price fluctuations) and other mechanisms (such as reduced support due to fiscal compressions).

<sup>(2)</sup> *Extremely poor are those living on less than USD 1.25/day*



## 4/ IMPORTANT MESSAGES FROM SECONDARY DATA

As already stated earlier, it is well acknowledged that smallholder centred agricultural growth tends to contribute significantly to poverty reduction and food security in the Global South. In these countries, public investment is considered a critical factor to augment capital formation in agriculture and sustain private investment. Although, there have been strong linkages between increased public expenditure and growth that occurs in agriculture sector, prioritisation of such expenditures have declined in the recent years. In the era of Finance Capital, priority of public investment in general, and towards agriculture sector in particular, has seen a declining trend across the globe. However, some argue that this declining trend in agricultural spending has recently begun to reverse, especially after the economic crisis followed by world food price crisis (2008), which is partially true in a few cases.

The declining trend of capital formation (which is due to withdrawal of public investment) in this sector needs to be reversed through adequate provisioning in the annual country budgets. There is an urgent need for prioritising public investments towards provisioning appropriate rural infrastructure, physical as well as social, and on social protection/security measures, subsidising agriculture inputs and public procurements etc., which would contribute, to a large extent, in ensuring food security of the small holder agriculture at their household level.

More importantly, the overwhelming presence of smallholder farmers<sup>(3)</sup> in most of the countries of Global South, with significant contribution to the total value of agricultural output<sup>(4)</sup>, their economic viability and contributions to diversified landscape and culture is threatened by competitive pressure from globalisation and integration into a

common market. Hence, public policy in favour of increased public investment towards agriculture would not only play a crucial role in shaping the overall agricultural development of the world, but also equitable economic development with hunger and malnutrition free world. On the other hand, there are instances that how countries have had experienced negative consequences of not prioritising public investment policies towards this sector. For instance, the economic policies that have been implemented in the countries of Latin America in the 1990s were based on economic and trade liberalisation. This has exposed rural economies to the forces of the market and has resulted in lower public investment in rural areas and consequently the incidence of rural poverty started climbing up, with increasing poor health and malnutrition.

The most common and widely accepted definition of the smallholder is based on the land size. In general smallholder farmers are characterised by marginalisation in terms of resources, accessibility, information, technology, capital, and assets, but there is great variation in the degree to which each of these applies (Murphy 2010). FAO has adopted a 2 hectare threshold as a broad measure of a small holder farm.

Smallholder farmers constitute majority of the world's undernourished people despite their huge importance in the global and regional food production. Most of the smallholders are living in absolute poverty (IFAD 2011). Not all of the studies on the link between agriculture and poverty recognise the role of smallholder families particularly, but the fact that they constitute a large proportion of world's poor, their development can definitely help in addressing hunger and poverty.

But the irony of the fact is that due to inadequate attentions in the overall policy framework followed by lack of budgetary support; this sector has been facing serious challenges and has become almost unviable. As is clear from the analysis of the secondary literature and data, the overall fiscal space in developing countries in Asia, including Vietnam and India, has been inadequate. The study has tracked the public spending in agriculture and other sectors, and its associated priorities at the global and regional levels since 1980. The data provided by the International Food Policy Research Institute (IFPRI) in its Statistics on Public Expenditures and Economic Development (SPEED) database, has been used extensively for this purpose. With regard to definition of agriculture sector and other sectors, relevant

indicators of public investment data on agriculture, data on Gross Domestic Product (GDP) etc., readers are advised to refer to the above noted source.

*(3) Smallholders referred to small-scale farmers, pastoralists, forest keepers, fishers who manage areas varying from less than one hectare to ten hectares and are characterized by family-focused motives such as favouring the stability of the farm household system, using mainly family labour for production and using part of the produce for family consumption.*

*(4) For example, in India their contribution to total farm output exceeds 50 per cent although they cultivate only 44 per cent of total arable land.*

## 4/1/ STATUS OF AGRICULTURAL INVESTMENT IN THE WORLD

While looking at the trends with respect to public spending in agriculture, education, health, defense, transport and communication, and social protection over the period 1980-2012, it was found that World economies were spending only a small share of their respective GDP towards agriculture sector. In fact, the share of agriculture to the total GDP of the World was 1.72 per cent in 1980, declined to less than one per cent (i.e. 0.83 per cent) in 2012. The average of such spending during the period between 1980 and 2012 was around 1.23 per cent. Hence, it is clear that public spending towards agriculture sector is the least priority compared to all the sectors in the global budget. In such scenario, one can't expect prospect in the sector unless there would be a massive public spending in the sector, which in turn could attract private investments.

Similarly, the share of agriculture spending out of total expenditure of the World also portrays a declining trend. The world was spending around 5.55 per cent of its total budget in 1990, declined

to 3.66 per cent in 2000 and further declined to 2.98 per cent (almost half of its spending compared to the share of 1990) in 2012. However, the average of such spending stands at 4.76 per cent during the period between 1980 and 2012. This clearly indicates that in the decade of 1980s, public policies were backed by public investments, which was not seen after words with the ascendancy of neo-liberal policies.

With regard to the share of public spending towards agriculture sector (out of their Agri-GDP), the world was spending around 6.53 per cent in 1990, increased to 9.78 per cent in 2000, and it come down to 5 per cent in 2010. However, the reversal of such spending was observed in the year 2012 (increased to 16.39 per cent), indicates that there has been a spurt in public investment in recent years. This could be due to a fall in contribution of agriculture sector to the overall GDP of the world. However, on an average, world was spending around 12 per cent of its Agri-GDP towards agriculture sector.

## 4/2/ THE SOUTH ASIA

Despite having world's large number of farms and agricultural dependent population in the region, South Asia's performance regarding food security is worrisome. In Nepal, the incidence of poverty and food insecurity is particularly acute in distant

hills and local food production is not sufficient even for more than six months of its requirements. FAO reported in 2008 that the overall undernourishment in Pakistan was about 24 per cent in 2004. Around 40 per cent of the total population of Bangladesh

were consuming less than 2122 kcal per capita per day, while 20 per cent of population consumes less than 1805 kcal per capita per day. India, in fact, is home to a significant share of hungry population of the world; it houses 194.6 million undernourished people, which is 15.2 per cent of the global population.

While analysing respective public expenditure trends for countries in various regions of the World, it was noticed that the high income countries have increased their spending towards agriculture (as measured with that of the GDP generating from agriculture sector), with a consistency growth observed from the Euro Zone countries. On the other hand, it has also been noticed that the regions like Sub-Saharan Africa (SSA) and East Asia and the Pacific (EAP), have been spending a larger per cent of their total budgets towards agriculture sector compared to high income and Euro zone countries. The crucial point worth noting is that during the 1990s extensive withdrawal of State in terms of public expenditure was noticed in most areas including the agriculture sector. Further, the fiscal space (budgetary spending out of world GDP) did not show any appreciable increase over the period of analysis; in fact, over a period of 32 years (i.e. from 1980 to 2012), it was only five per cent.

In south Asia, public spending in agriculture vis-à-vis other sectors such as education, health, defense, transport and communication and social protection, has been a matter of low priority. For instance, the share of agriculture spending in the total GDP of the region was 2.37 per cent in 1980, declined to 1.55 per cent in 1995 and further to less than one per cent (0.97) in 2011, although it increased to 1.16 per cent in 2012.

The limited/inadequate fiscal space of the region has actually constrained the national governments to give a push for spending for the agricultural sector. For instance, the share of total expenditure of the region was 18.17 per cent of its total GDP in 1980, which has increased to 22 per cent until 2000, however, the share declined to 20 per cent in 2012. Further, the limited increase in fiscal space of the region was largely in favour of defense and other sectors, whereas agriculture remains neglected.

As regards priorities of public spending towards agriculture in six countries of South Asia: average

share of such expenditure for India (during 1980 to latest available year) was extremely low (1.01 per cent), only ahead of Pakistan (0.28) and Bangladesh (0.6), whereas Bhutan was spending around 5.75 per cent of its GDP, and Sri Lanka was spending 2.61 of its GDPs towards agriculture sector. Further, the profile of public spending on agriculture as a proportion of Agri-GDP for the same periods is as follows: Bhutan again tops the list with 17.74 per cent followed by Sri Lanka (13.44), whereas for India it was only 4.38 per cent. Although, in 1990 it went up to 4.91 per cent and had increased further to 7.68 per cent in 2009 but declined subsequently to 6.17 per cent in 2011.

In other words, due to inadequate policy attention, particularly to agriculture, India's countryside has come under tremendous pressure with respect to all the relevant major macro-economic indicators. It is well-documented that gradual changes in the country's macro-economic policy regime which started during late 1980s-by the early 1990s a fundamental change occurred in the overall macro policy framework with opening up of the economy to the world market. This shift from dirigiste regime to a market-driven policy regime has had profound implications for the well-being of the masses, particularly in the rural India. The rural India, mainly the agriculture sector, which continues to be the life-line for millions, State's action through appropriate public policies would have significant implications with regard to the overall performance of this sector. As has been repeatedly acknowledged within the policy establishment that the development of rural areas should have remained the focus of our policy framework whereby the overall growth of the economy with inclusiveness can be achieved.

Further, public investments in agriculture have tended to be biased towards better off areas and sections. Public support towards research and development, extension services, infrastructure development such as cold storages and market yards and other measures, which can have higher impact on smallholders' production and productivity, have remain neglected. The philosophy of fiscal prudence has restrained states in their overall spending in the recent decades.

## 4/3/ THE EAST ASIA AND PACIFIC REGION: THE CASE OF VIETNAM

The East Asia and Pacific is one of the most successful regions in reducing hunger and under-nutrition, besides growing fastest in the world. Still the region faces wide array of challenges and threats to its food security. Poverty rate in Cambodia has decreased from 53.2 per cent in 2004 to 20.5 per cent in 2011 as reported by the World Bank and it ranked 138 out of 185 countries in HDI. In 2012, the incidence of rural poverty in Indonesia was 14.7 per cent as compared to 8.60 per cent in urban areas. Also three out of every four people in the rural areas of Philippines are poor. In Thailand the proportion of population who are poor was 8 per cent and that of undernourished people is 16 per cent at the end of 2007 (FAO 2011). Vietnam is home to 11.5 million undernourished people, which is almost 14 per cent of its total population (FAO 2011).

Vietnam saw significant rural transition and reduction in poverty in 1980's by undertaking institutional reforms. The poverty rate in Vietnam fell from 57 per cent to 20 per cent over the period 1993 to 2004 (World Bank, 2005). After Independence, Vietnamese Communist Party gave importance to land reform and redistribution programmes to develop its economy. In late 1950s, agricultural production was collectivized in North Vietnam. Under collectivization, farmers were tied to cooperatives through residential registration which linked cooperative membership with access to food and rural employment and ensured a large, fixed supply of agricultural labour, even during periods of war. Under the cooperatives there were obligations on farmers to provide collective labour and fulfil procurement quotas imposed by central authority. There were several factors which reduced rewards of farmers to provide collective labour under cooperatives.

Vietnamese Communist Party put lot of efforts to improve agricultural performance from collective production but lack of incentives on the part of farmers undermined collective efforts. Farmers preferred private production for own consumption or for free market than providing collective labour under cooperatives. However state was forced to abandon collectivization by the end of 1980s due

to food shortage, low productivity and continuous fall in agricultural production (i.e. during 1960s and 1970s per capita production of foodgrain declined steadily).

In Vietnam collectivized agriculture became very unpopular by the 1980s whether it was in form of 'cooperatives' in North or 'collectives' in South. The main reason for this was inefficiency of collectivized farming. Collectivized farming in Vietnam resulted into low yields of agricultural output which put strain on the food availability in economy. From late 1970s and 1980s food shortage was common in Vietnam.

The official shift from socialist control economy to market oriented one began with Doi-Moi Reforms of 1986. Since the decollectivization of agriculture in Vietnam, agriculture productivity has increased steadily; food grain availability per-capita started to rise on a persistent trend after 1988 (Akram-Lodhi 2004, 2005). Decentralizing decollectivization process and switching back to family farming put an end to Vietnam's food crisis.

After the 1988 Land Law, the de-collectivization process was rapid and was largely complete by 1990 (V. L. Ngo 1993). In 1993, Vietnam government took second stage of reform by introducing legal reforms to support emergence of a land market. For the first time since the communal rule began in Vietnam, Land Law introduced in 1993 permitted land transactions. Land remained the property of the state, but usage rights could be legally transferred, exchanged, mortgaged, and inherited. A further resolution in 1998 removed restrictions on the size of landholdings and on the hiring of agricultural labour. From 1990 to 1994 number of cooperatives declined rapidly both in North and South Vietnam.

Economic Renovation (Doi-Moi) in Vietnam had facilitated historical change in agricultural sector. The biggest success of economic renovation in Vietnam can be seen in agriculture. Since the Doi-Moi reform initiated in Vietnam, it has transformed itself from a food deficient to a "surplus" country, exporting rice, meat and vegetable. In most of the

rural areas food deficiency has declined sharply. There is not only remarkable growth in food production but also in other crops: coffee, tea, cotton, groundnut and rubber have experienced significant increases in output. Moreover, animal rearing has also recorded positive development. In 1993-94, Vietnam's agricultural sector was characterized by application of advanced techniques especially high yielding seeds such as ROCI and ROC 10 sugarcane, bi-generation silk worm varieties and hybrid cotton etc. Since the launch of DoiMoi and until its accession with WTO, Viet Nam's growth rates were high owing mainly to rising investment and vigorous exports. Production and trade of agricultural products has increased over the past few years and Viet Nam is now an important producer and exporter of several agricultural products, including rice, coffee, and cashew nuts with a large surplus in trade in agricultural products. Imports have also increased considerably, particularly of inputs such as animal-feed and cotton.

Viet Nam produces a wide variety of agricultural products, with crop production accounting for over three quarters of the gross value of output. Rice, the main crop, accounts for 36per cent of the total value of agricultural production, followed by coffee and rubber. Production of all major agricultural products increased steadily in recent years and growth has been particularly strong for cashew nuts and cassava, which had average annual growth rates of over 15per cent from 2000 to 2011. Land reform has been credited with being a significant

factor in the increase in production of agricultural products.

Vietnam's trade has achieved many successes in the last two decades and openness has rapidly increased. From a country which had to import food, Vietnam has become the second largest rice exporter in the world after India in 2012. Since 1990, the Vietnamese economy has shown continuous improvement. The GDP has more than doubled in the last decade and growth is particularly inclusive in nature with poverty rate fell faster than any other country in world except China. According to the General Statistics Office of Vietnam (GSO), the GDP growth rate of Vietnam fluctuated around 8 per cent (from 1990 to 2011), and agriculture sector grew at a steady rate (at approximately 4per cent per annum). Agriculture remains the only sector generating net export surplus of over US\$9 billion in 2011. The robust economic growth over the last two decades has been accompanied by an impressive fall in the incidence of poverty. Once the Vietnam economy shifted towards market oriented economy where farmers were free to engage in private production, agricultural productivity increased steadily

However these positive trends are unlikely to continue. Already prices of many commodities in the international markets are declining since 2-3 years and are likely to decline further in real terms over the next decades. Furthermore, private incentives associated with relatively market friendly regime have certainly boosted the growth of the Vietnamese economy, it may ap-



pear that one shot advantage have been reaped and in the absence of the robust infrastructure of public provisioning things might not look as promising as been seen in the recent past. Also we must emphasize that the issue of equity needs to be put at front burner which can never be done by a market driven regime.

Most of the countries in East Asia and Pacific regions are also primarily dominated by agriculture as their prime source of livelihood and employment, however, the priority of public spending through budgets are not seen during last couple of decades. As is clear from the data (as per above noted source), the share of agricultural spending in total GDP of the region was 1.98 per cent during 1980, which has declined to 1.16 per cent in 2012. In this region, priority of spending was observed in education and social protection measures rather on defense sector, as was the case for countries in the South Asia region. In order to look at specific countries expenditure priorities towards agriculture sector, there were 11 countries chosen from East Asia and Pacific region (the countries were taken as per the availability of relevant data in the secondary sources) and to locate Vietnam's spending priority from its public budget.

The relevant shares of spending on agriculture sector out of Agri-GDP for East Asia and Pacific countries show an improvement over the period. For instance, China was spending 6.06 per cent in 1990, increased to 8.24 per cent in 2000 and a manifold increase of such spending noticed in 2010 (22.95 per cent). However, the average shares of such spending between the period 1980 and 2012 remained at 9.65 per cent. Similarly, the increase of such shares was close to three times for Vietnam. The relevant share was 2.31 per cent in 1990, increased to 6.49 per cent in 2010.

The most important fact is that Vietnam's total spending towards agriculture sector out of its agri-GDP was only 2.31 per cent, which increased to 8.48 per cent in 2000 and did not maintain the tempo as its share declined to 6.49 per cent in 2010. Similar is the observations noticed with respect to share of agriculture spending in total GDP of the country. For instance, Vietnam was spending 0.89 per cent of its GDP towards agriculture sector during 1990, increased to 2.08 per cent in 2000,

but declined to 1.23 per cent in 2010. Hence, the average spending on agriculture, as per cent of its GDP, during 1990 to 2010 was only 1.54 per cent.

As noted earlier, the limited/inadequate fiscal space of this region has impacted in terms of provisioning for a range of requirements, including the agriculture sector. The share of total public spending in total GDP of the region was 22.45 per cent in 1980, which has increased to 24.56 per cent in 2012, but this increase in limited fiscal space of the region did not reflect in an increased spending towards agriculture sector. The limited fiscal space for many countries in this region also pulled its agriculture sector from the list of public expenditure prioritisation in country's annual budgets. However, unlike many of the East Asia and Pacific countries, the fiscal space of Vietnam has grown more than 100 per cent. In fact the share of total expenditure of the country to its GDP was 14.93 per cent in 1990, increased to 31.11 per cent during 2010. This actually facilitated country's annual budget to provision higher allocation towards education and social protection measures. The most crucial message emerging from this is that Vietnam had prioritised is spending towards education and social protection measures over the period between 1990 and 2010, which is a good thing. For instance, the shares of expenditure towards education, health, transport and communication and social protection were 1.74, 0.55, 20.07 and 1.47 per cent during 1990, and reported to be 4.35, 1.53, 3.98 and 3.48 per cent, respectively during 2010. But, public investment prioritisation for agriculture sector was not seen during the period of analysis.

For sustained shared growth, poverty reduction and food security it is important that Vietnam continues to prioritise its spending towards agricultural sector, which of course would require a coordinated strategy among the regions, sectors and sections of population. Further, the available fiscal space is not a serious problem for the country, unlike other East and South Asian countries; a little effort in increasing the tax-GDP ratio of the country would facilitate State to put in more resources for its farmers in general and for small and marginal farmers, along with steady growth in public expenditure towards education and social protection measures.

# 5/ RESULTS FROM THE PRIMARY SURVEY

## 5/1/ PROFILE OF THE STUDY REGIONS

The field survey was conducted in 14 villages in 7 communes across four provinces in Vietnam. It includes

### 1) Cao Bang Province of Thong Nong District:

- Da Thong commune, Lung Lua village (hamlet)
- Ngoc Dong commune, Man Thuong Ha village

It is a mountainous province located on northeast part of Vietnam. Mountain forests cover more than 90 per cent of whole province and only 10 per cent of land is available for cultivation. The current population in the province is 519 thousand people and has ancient residence of Vietnam. The terrain of the province is relatively flat which includes low hills. In general, the terrain has varied; divide by deep valleys, rivers, rolling hills and streams. Due to complexity of terrain, there are various sub regions which has specific behaviour, allowing diversified crops and livestock. Cao Bang province has fragmented land in agriculture production which is prone to soil erosion, leaching during the rainy season. Total area of province is 670,342 hectares. Land resource is quite diversified with variety of soil types available which is suitable for variety of crops. Forest area of province has many rare plant species of high economic value.

### 2) Vung Liem district, Vinh Long Province

- Trung Chanh commune: Quang Trach and Quang Duc village
- Quoi An commune: Quang Minh and Quang Binh village
- Tan Quoi Trung commune: Hai and Rach Doi village

Vinh Long province is located between Tien and Hau Rivers and Mekong Delta. There are 8 administrative unit and 6 districts in Vinh Long province. It is among one of the provinces with highest population density. The terrain of the province is relatively flat. Land is suitable for the intensive cultivation, multi-cultivation and development of biodiversity due to favourable climate conditions for agriculture development. Generally rainfall is concentrated in six months rainy season which create local flooding, affecting agricultural production and daily life of people as well. Recently there is increase in proportion of industrial and service sector and economic structure of province is shifting towards sustainable development. Groundwater resource is very limited and distributed only in certain areas in the province. While surface water resources are assigned throughout the province.

### 3) Eakar district, Dak Lak Province

- Eadar commune: Tong Sinh and Suk village
- Cu Ni commune: Eaga and Eak Nuop village

Dak Lak is located in the central part of central highland which also include four other provinces. It constitute of 13 districts which have 180 communes, ward and towns. The total population of the province was 1,728,380 as of 2009 out of which only 22.5 per cent of the population resides in urban area and 77.5 per cent in rural area. There are 44 ethnic minorities in the province but the Kinh is the largest group constituting 70 per cent of the total population. The average population density of the province is 132 persons per square kilometre but the distribution of population across the province is not even. There are 14 hospitals at the district level.

### 4) Ha Giang Province, Quan Ba district

- Thai An Commune: Lo Thang II village
- Can Ty commune, Dau Cau I village

Ha Giang province lies in the northeast part of Vietnam and it is also known as Vietnam’s final frontier. Total area of province is 7945.8 square kilometre and had population of 705 thousand as of 2008 and majority of them are ethnic Vietnamese. Ha Giang province has a mountainous topography and it is considered as one of the poorest province of Vietnam due to least potential of agricultural development. Much of the land of province is covered by forests. Central plateau of province is good at both growing and exporting plums, persimmons and peaches. Agriculture and forestry are one of the traditional economic activities of the province but recently there has been boost in manufacturing industry.

Given the broad objective and profile of the study area, the key findings of the study are summarised in the following few paragraphs.

## 5/2/ SOME KEY FINDINGS FROM THE FIELD

### 5/2/1/ Distribution of Land Holdings

Almost 99 per cent of the land holdings in Vietnam are less than 4 hectare in size and 94 per cent of them are small and marginal holdings. Landlessness in Vietnam is not much prevalent as the government has undertaken land reforms on many occasions but it remains an economy dominated by the smallholders. As more than half of the population is employed in agriculture, there is a dire need to support agriculture to make it sustainable. Only 4 per cent of the households have land holdings between 2 and 4 hectare. So, any policy related to agriculture sector must be focused on smallholder farmers for the sustainability of the economy.

The picture is not much different if we look at the different provinces in which the survey was carried out, as the share of households having farm size less than 2 hectare is 88.57 per cent, 71.43 per cent, 90 per cent and 84 per cent respectively for Cao Bang, Dak Lak, Ha Giang and Vinh Long province. The size of the landholding is going to decline with the increase in population in the due course of time.

**Table 3: Distribution of Landholdings**

Province	Landless (<0.02)ha	Marginal (0.02-1)ha	Small (1-2)ha	Semi-medium (2-4)ha	Medium and Large (>10)ha
Cao Bang	0.00	88.57	7.14	4.29	0.00
DakLak	0.00	71.43	20.00	7.14	1.43
Ha Giang	1.43	90.00	2.86	5.71	0.00
Vinh Long	0.00	87.14	12.86	1.43	0.00
Average	0.36	84	10.68	4.63	0.36

Source: Compiled from the Field Survey Data





The total number of plots owned by the households surveyed is 728 which cover an area of 180.18 hectares. Vinh Long and Ha Giang has 203 number of plots but the area under the households of Ha Giang province is half of that is in Vinh Long province which reflects that the pressure on the land is much more in Ha Giang province. Similarly, DakLak province has only 144 plots but they cover 65.79 hectares of area while Cao Bang has 178 numbers of plots which covers only 39.87 hectares of area. So the plots in the provinces of Ha Giang and Cao Bang are more stretched than the other provinces and therefore needs greater attention of the government in terms of support to agriculture.

**Table 4: Distribution of the Plots**

Province	No of Plots	Area (hectares)
Vinh Long	203	49.63
Ha Giang	203	24.89
Cao Bang	178	39.87
DakLak	144	65.79
Total	728	180.18

Source: Compiled from the Field Survey Data

### **5/2/2/ Level of Awareness and Use of Public Provisioning**

The reforms in Vietnam have benefitted agriculture as it became food exporter of many commodities from being an importer of these before the reforms. The Vietnam government has initiated many programmes and policies for the development of agriculture sector. Findings from the field show that the awareness among the households about the government schemes is prevalent although not always but somehow their accessibility is a major problem.

**Table 5: Level of Awareness and Use of Public Provisioning (In percent)**

Province	Awareness about Price support	Price support accessed last year	Awareness about Subsidy	Subsidy received last year
Cao Bang	52.86	0.00	78.57	12.85
Dak Lak	14.29	1.43	35.71	18.57
Ha Giang	78.57	67.14	54.28	14.28
Vinh Long	43.66	4.23	22.53	0.00
Average	47.33	18.15	47.69	11.39

Source: Compiled from the Field Survey Data

On Support Price: Taking together the averages of households surveyed in four provinces, 47.33 per cent of the households are aware of the support price that is issued by the government while only 18.15 per cent of the households have benefitted it. The awareness and its use differ across the provinces. The awareness is highest among Cao Bang and Ha Giang province as 78 and 52 per cent of the households are aware of the price support provided by the government. But 67 per cent of the household in Ha Giang received price support and no household received it in Cao Bang province despite being aware of it. The households in provinces of DakLak and Vinh Long are less aware of the price support and most of them didn't receive the

price support in the last year. Only 1.43 and 4.23 per cent of the households received the support price in DakLak and Vinh Long province, respectively.

On Subsidy: In the study region, 47.69 per cent of the households are aware of the subsidy provided by the government for inputs and various kinds of equipment's while only 11.39 per cent of the total households are able to access it. Again the awareness and use of the subsidies given by the government is highest among the households in Cao Bang and Ha Giang province. As 78 and 54 per cent of the households in these provinces are aware of the subsidies but only 12 and 14 per cent of the households are able to receive it. In the provinces Vinh Long and DakLak the share of households who are aware of the subsidies for inputs are 35 and 22 per cent while 18 per cent of the households accessed subsidy last year while no households got it in the previous year.

It is somewhat puzzling that even after being aware of the public supports in the province, people are not able to benefit from these provisioning, indicates that there are problems with regard to effective implementation of these provisioning. There could be possibility of inadequate institutional mechanisms to deliver the services, or lack of effective planning and shortage of human resources. Hence, there is need to strengthen these institutions and process so that people can access the public supports easily.

**Table 6: Level of Awareness and Use of Credit Provisioning (In percent)**

Province	Awareness about Credit provisioning	Credit support accessed last year	Awareness about other support	Use of these supports last year
Cao Bang	94.29	91.43	52.86	12.86
DakLak	91.43	81.43	15.71	12.86
Ha Giang	75.71	52.86	10.00	22.86
Vinh Long	55.71	37.14	11.43	17.14
Average	96.44	65.77	22.42	16.37

Source: Compiled from the Field Survey Data

On Credit: It has been found that the state is quite successful in informing the people related to credit provisioning by the government, as 96 per cent of the households reported to be aware of the credit support provided by the government. The awareness is highest among Cao Bang and Dak Lak province at 94 and 91 per cent followed by Ha Giang and Vinh Long. In terms of the access of the credit, 65 per cent of the household surveyed were able to access it 91 per cent and 81 per cent of the households in Cao Bang and Dak Lak province accessed credit while the share for Ha Giang and Vinh Long is 52 and 37 per cent.

Around 22.4 per cent of the households are aware of other supports related to agriculture while taking the study region as a whole, while only 16.4 per cent of the households were able to access this supports. The awareness is highest among the households surveyed in the Cao Bang province (52) followed by followed by Dak Lak, Ha Giang and Vinh Long. In terms of accessing and benefitting these supports, Ha Giang tops the list with 22 per cent of the surveyed households followed by Vinh Long and same number of households (12.86 per cent) accessed it in Cao Bang and Dak Lak province.

### 5/2/3/ Agricultural Income

Agricultural income of the surveyed households turns out to be around 0.77 USD per person per day which is well below the international poverty line of 1.25 USD per person per day. The low level of income has serious consequences in terms of poverty and under nutrition. The average farm income of the household is 0.21 USD per person per day and the average non-farm income is 0.56 USD per person per day. On an average the households surveyed from three of the provinces of Ha Giang and Cao Bang are surviving much below the poverty line while the incomes of the people in the Dak Lak is also below the poverty line but it is not much low, compared to other two regions. The only province in which average income per person per day is well above poverty line is Vinh Long.

**Table 7: Average Per Capita Income (Per day in USD)**

Province	Farm income	Non-farm income	Total
Vinh Long	0.57	0.93	1.5
Ha Giang	-0.06	0.28	0.22
Cao Bang	-0.01	0.14	0.13
Dak Lak	0.34	0.88	1.22
Average	0.21	0.56	0.77

Source: Compiled from the Field Survey Data

Agricultural income of the households surveyed turns out to be negative in the province of Ha Giang and Cao Bang, while non-farm income is positive. This is mainly because of the fact that these provinces are situated in the mountainous regions and the main economic activity of these provinces is not agriculture. The households are engaged in the non-farm activities mainly in forestry and livestock. Also, because of the topography, the quality of land is not as high as that of plain areas and the extension services and infrastructure is not as developed as in the other regions. Households are not able to recover the expenditure made in terms of inputs required for the production. There is need for more public support in these provinces, as they are on the disadvantageous side, so that agriculture becomes sustainable in these areas also.

Even in the province of Vinh long the distribution of the income is very unequal. In this province if we exclude top ten per cent of the households then the average income turns out to be below the poverty line (1.24 USD). Similarly, in the Dak Lak province by excluding the top five per cent of the households the average per person per day income falls much below the international poverty line to 1.07 USD per person per day.

Most of the smallholders are engaged in the non-farm activities to supplement their income. The non-agricultural income is 0.56 USD per capita per day in Vietnam. It is the non-farm activities that are enabling the smallholder farmers to move out of the poverty. State has to invest heavily in agriculture to make it profitable by supporting the smallholder families. The households prefer non-farm activities because of the risk factor involved in the agriculture and the income generated in the non-farm sector is much higher than from agriculture. Government should invest more in non-farm activities which will enable the smallholders to make investment in farm. Further, there is a need for protecting farms with agri-insurance and creating an environment where farmers would be willing to invest in farm activities out of their income from non-farm activities.

## 5/2/4/ Sources of Energy

In an attempt to know the health status of the household members, the information relating to sources of energy and their uses has been captured. It has been found that most of the households surveyed use electricity as the primary source of the energy and few households in Dak Lak and Ha Giang use kerosene for the energy purpose. The percentage share of households using electricity as the prime source of energy is highest in Ha Giang (98.57) followed by Vinh Long (90.14), Cao Bang (90) and Dak Lak (85.71). Vietnam has moved towards efficient sources of the energy in terms of distributing electricity to the households.

Table 8: Sources of Energy					
	Provinces				
Source of energy	Cao Bang	Dak Lak	Ha Giang	Vinh Long	Average
Electricity	90.00	85.71	98.57	90.14	91.11
Kerosene	0.00	1.43	1.43	0.00	0.71
Other	10.00	8.57	0.00	9.86	7.11
Source of Cooking fuel					
Kerosene	0.00	1.43	0.00	0.03	0.36
LPG	0.00	21.43	0.00	0.06	5.37
Firewood/Dungcake/ Farm residue	100.00	74.29	100.00	0.69	68.80

Source: Compiled from the Field Survey Data

In terms of use of the cooking fuel, only 5.37 per cent of the household surveyed use LPG as primary fuel and 68.8 per cent of the households are using firewood/dung-cake/crop residue, while the share of households using kerosene is negligible. Particularly in the province of Ha Giang and Cao Bang all the households surveyed use firewood/dung-cake/farm residue as the source of cooking fuel mainly because of the easy availability of the firewood as most part of the province is covered by forest. This reflects the lacuna in the distribution of the basic support provided by the state, which has major health consequences. Only 5 per cent of the households which are using LPG as the prime fuel for the cooking purposes are concentrated in Dak Lak province and the share of other provinces is also negligible. This also shows that the living condition of the households surveyed is very poor, as has been seen from their levels of income. So there is need to strengthen the basic facilities provided by the state which will enable them to overcome many diseases (occurred due to use of inefficient sources for cooking) and raise the living standards.

## 5/2/5/ Status of Farm Mechanisation

The level of mechanisation seems to be very low in the surveyed households. The most used machines for the cultivation are tractor, hand tractor and broadcast seeder. Only 33 per cent of the households use tractor for the cultivation, 12 per cent of the households use broadcast seeder and 13.88 per cent of the households used hand tractors for the ploughing purposes. The use of other machines for the cultivation is not much prevalent. Only 3.2 per cent of the households use sprayer, 2.49 per cent of the households use sprinkler for the irrigation, 1.2 per cent of the household used seed drill techniques for the purpose of cultivation and the percentage share of use of other (transplanter, harvester and drip irrigation) techniques is negligible in the households surveyed.

**Table 9: Use of Machines and Implements by the Smallholders (In percent)**

	Provinces				
	Cao Bang	Dak Lak	Ha Giang	Vinh Long	Average
Hand Tractor	1.43	30.00	0.00	23.94	13.88
Tractor/cultivator plough	21.43	74.29	8.57	28.17	33.10
Broadcast seeder	14.29	27.14	4.29	5.63	12.81
Seed drill	1.43	0.00	0.00	4.23	1.42
Transplanter	0.00	0.00	0.00	1.41	0.36
Sprayer	2.86	5.71	0.00	4.23	3.20
Drip irrigation	2.86	0.00	0.00	0.00	0.71
Sprinkler	1.43	5.71	0.00	0.00	2.49
Harvester	0.00	0.00	0.00	2.82	0.71

*Source: Compiled from the Field Survey Data*

The rate of technological change or mechanisation is not always a positive change. One has to look that it should have potential for labour absorption and at the same time should reduce the drudgery of the human labour and should promote decent work. Any blind belief in technological change is not good. The low level of mechanisation indicates that farming involves more labour than the machines. Most of the smallholder families employ their family labour in the fields so if public provisioning is strengthened than the people working on these fields will be benefitted and this will help them to move out of the poverty by reducing their cost and increasing income levels.

From the above results, there is clear indication to strengthen public support in terms of price support for the produce, subsidy for the agri-inputs etc. It is urgently required that there is a greater need for creating public awareness about the benefits of the government policies and programmes. Further, government should strengthen the institutional mechanism and address procedural issues to deliver services effectively.

From the Focused Group Discussions (FGDs) conducted at the commune level with the officials and the farmers. It has been found that some public support is available for the families, especially for the poor and the ethnic minorities. In the communes state provides support in terms of both breeds and fertilizers. In terms of food

security, state provides food grains to the poor households. Under the government-targeted programs, poor and nearly poor households can have many supports, either in cash or in kind, namely exemption of tuition fees for children, health insurance card, electricity of VND 35,000/month, etc.

Most of the households in all the communes are electrified and primary health facilities are available at the village level. Primary schools are available in all villages with secondary and senior secondary schools at the commune or district levels. People belonging to the ethnic communities don't have to pay any school fees or tuition fees for the kindergartens but have to pay for the books, note pads and other items.

Drinking water facility is available in the provinces but in the Ma Pan ward and Lung Lua village of Cao Bang province water for the drinking and irrigation purposes is collected from the river and springs. Public water sources are not available in this ward and there is no water pipe to transit water from the river to the home. Public transport is not available in all the villages surveyed and the most used vehicle for the transport is motorcycle.

Most households borrowed from Vietnamese Bank for Social Policies and Bank (VBSP) for Agriculture and Rural Development. These credit supports are mainly for supporting agricultural activities, buying lands and building houses. Loans from the VBSP are easier as no collateral is needed only the certification by the ward authority is needed. Informal lending is not popular in the villages surveyed.

### **VIETNAM VS. INDIA: SOME INSIGHTS FROM THE SURVEY**

- The pattern of landholdings is not much different in India. Almost 50 per cent of the households have holdings size less than 1 hectare and 31.37 per cent of the households have holdings size between 1 and 2 hectares. But landlessness in India is much higher (7 per cent) in comparison to Vietnam.
- In India, 22 per cent of the households are aware of the support price provided by the government and only 4 per cent of the households are able to access it.
- Only 58 per cent of the households in India are aware of the credit support provided by the state while only 31 per cent of the households were able to benefit from it.
- The average income is only 0.58 USD in India. Not even a single surveyed state has average income above the poverty line. But in terms of average agricultural income per person per day, it is slightly higher in India (0.24 USD) than Vietnam (0.21 USD). The non-agricultural income is much higher in Vietnam than in India. It is only 0.34 USD per capita per day in India compared to 0.56 USD per capita per day in Vietnam.
- Only 65 per cent of the household surveyed in India are using electricity as the prime source of energy followed by kerosene (33 per cent).
- Almost 68 per cent of the households surveyed are using firewood as the primary source of the cooking fuel, 18 per cent of the households use LPG as the source of cooking fuel and the rest are using kerosene as the source of cooking fuel.
- The state of mechanization seems to be higher in the surveyed households in India as compared to Vietnam. The most used equipment by the household surveyed is cultivator plough and sprayer. The share of households using cultivator plough is as high as 57 per cent and for sprayer is 41.7 per cent. This is followed by the use of tractor (36 per cent), seeder (17 per cent) and sprinkler (16 per cent).
- Public provisioning on healthcare, education etc. seems to be worse in India compared to Vietnam.

## 6/ POLICY CHALLENGES AND THE WAY FORWARD

From the analysis of existing literature and data, findings from the field survey and FGDs conducted, it is evident that the State has to expand its activities to protect the interests of the smallholders and to make agriculture more sustainable. Although, there are many policies and programmes for the agricultural sector, but they are not adequate to address the problems of food security and hunger, for instance, as seen above that farm incomes are negative for two of the provinces in Vietnam and even non-farm income is not at all impressive. At this current juncture, where smallholders are competing with the global market and also facing the growing challenges of climate change, therefore, it is a dire need to protect them for sustenance of agriculture and to eliminate hunger. The major policy challenges for the government are:

- Considering the awareness and use of available public provisions in agriculture, it is clear that there is need to strengthen the policies for smallholder farmers. More specifically, it is evident from the data that public policies are not particularly targeted towards smallholder farmers. On the one hand, there is lack of awareness among smallholder farmers regarding available public provisions and on the other, the accessibility of the public provisions is even far lesser. There is a need for prioritising investment in agriculture directed towards smallholder farmers and simultaneously smallholder farmers should be made aware of these policy benefits.
- Of all the households surveyed, 90 per cent of them in Vinh Long province and all households in other three provinces are well below the international poverty line of USD 1.25 per person per day. The lower income had its severe implications on food security. Despite producing food, small and marginal farmers are themselves not food secure. There should be public provisions to address the income poverty of the smallholder farmers. There is a need to formulate support price mechanism so that farmers can get appropriate returns on their agricultural output. Here, the public procurement system can address the food security from two sides; by ensuring market for agricultural output and through distribution of foodgrains. The public procurement policy should focus on smallholder farmers.
- The trend of public expenditure towards agricultural sector is not impressive if one looks at the pace of overall fiscal space of the country. Hence, prioritisation of public investment towards agricultural sector in general and small and marginal holders in particular, in the budget, is the need of the hour.
- Smallholders are more exposed to poverty and malnutrition. Attention must be given not only to increase their purchasing power, but also increasing the access to productive assets and improving the quality and productivity of land and labour through increasing investment in training, research, technologies and other related support services to achieve food and nutrition security.
- Mechanisation of agriculture in all provinces is limited. Although the rate of technological change or mechanisation is not necessary for a positive change always, but such changes should reduce the drudgery of human labour and should be labour absorbing.
- The use of firewood as cooking fuel is alarmingly high in all provinces. Government should promote the use of efficient cooking fuel and make people aware of the health issues related to it.
- Households are not having access to drinking water facilities especially in the Cao Bang province. Government should focus on making drinking water available to all the households irrespective of the topography.
- In all the villages surveyed, it has been found that there is no facility of the public transport. Because of that farmers have to sell their produce to the intermediaries. There is a need to invest in public transport so that cost of transportation can be brought down which will also be reflected in the cost of cultivation.
- Government should adopt short and long term national strategies for smallholders and should have equal participation from all concerned stakeholders including the smallholder organisations.
- Government should recognise the individual as well as the collective rights of the smallholders to organise democratically and to participate in the policy debate and raise their concerns to protect their interests with a balanced representation (gender and age based).