

LIVELIHOODS ZONING “PLUS” ACTIVITY IN EL SALVADOR

**A SPECIAL REPORT BY
THE FAMINE EARLY WARNING SYSTEM NETWORK (FEWS NET)**

March 2010

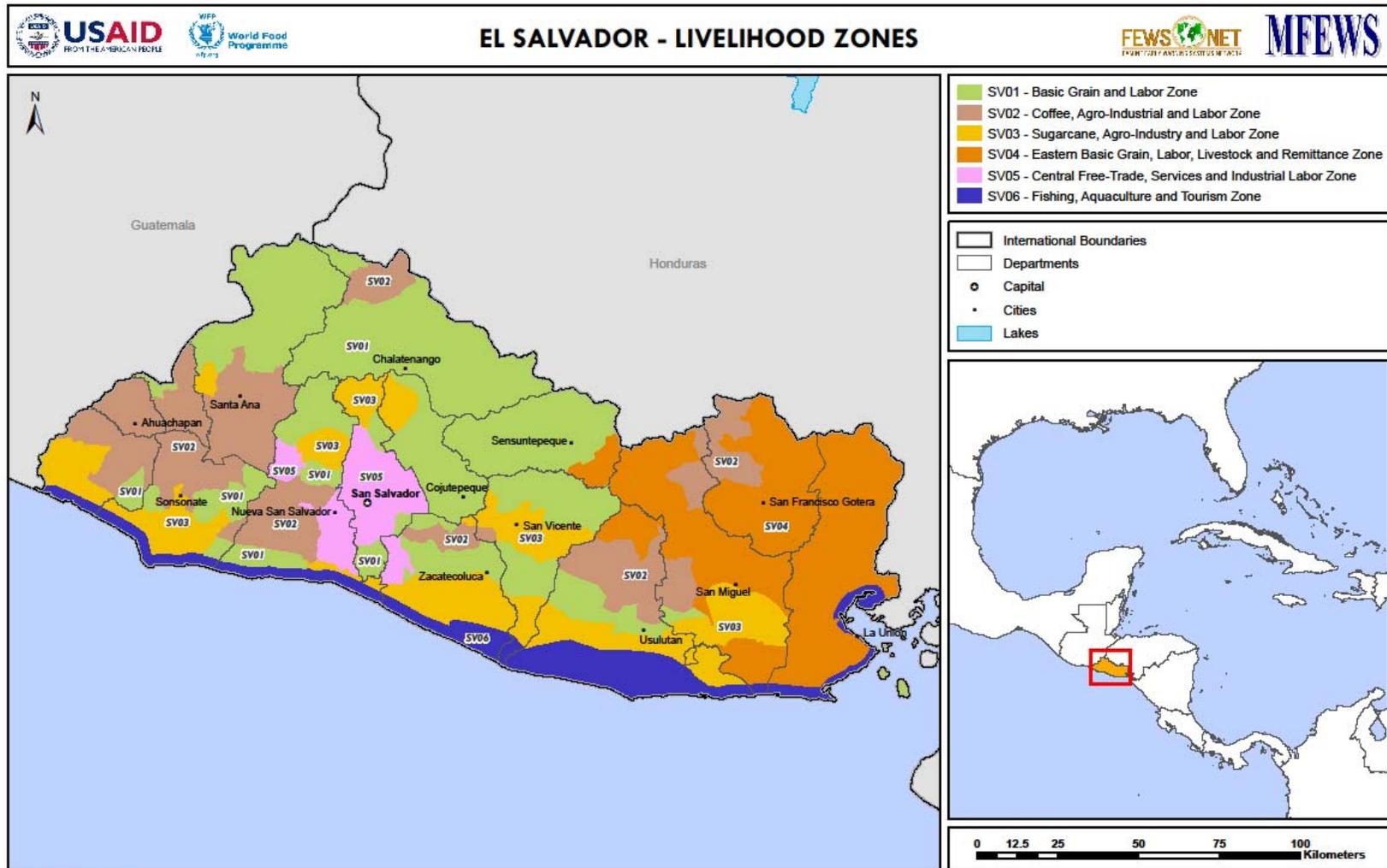
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Livelihood zone map



Livelihood zone descriptions

Livelihood Zone #1 – Basic Grain and Labor Zone		
Food Crops	Maize Beans Rice Sorghum	This livelihood zone covers a large part of the western and central part of El Salvador. Rainfall averages 1,800 mm per year. Households in this zone depend primarily on basic grain agriculture and labor opportunities offered on farms. In addition to crop production households may also keep livestock such as poultry, pigs and cattle. The types and number of livestock kept is contingent on household wealth.
Sold Crops	Maize Beans Sorghum Rice	
Livestock	Poor: Poultry	Sesame ¹ , vegetables and balsam production, as well as other agricultural activities and trade are secondary sources of income that exist for some households in the zone. Approximately 12,000 fishermen complement basic grain production with fishing from the zone's rivers and lakes. Basic grain is the driver of the zone's economy and all households are capable of producing the majority of their annual food needs. The quantities households are capable of producing depend on land cultivated and the availability and ownership of draught animals. With less land and limited access to draught oxen, the poor harvest less than their better-off neighbors, and use what they harvest mostly for household consumption. They will also sell a portion of the grains immediately after harvest to repay debts or to purchase essential non-food or food items.
	Better-off: Poultry Pigs Cattle	
Household Profile	Poor: 8 HH members Cultivated land: 0.7-1.4 hectares (rented)	All households will supplement their diets with purchased foods and livestock products such as eggs, meat and milk, if they own cattle.. Food bought from the market is significant for all households and is purchased throughout the year according to need. The types and quantities of food may vary between wealth groups. Better-off households will typically buy higher-quality foods, including imported grain and meat, whereas the poor will rely more on cheaper grains. Production for the better-off is mostly to sell when grain prices peak.
	Better-off: 4 HH members Cultivated land: 3.5-5.0 hectares	
Cash Income	Crops Labor Livestock sales Remittances	Crop production, and the labor opportunities it provides, serve as the economic bedrock for the zone. Better-off households source most of their cash by selling grains, whereas the poor earn most of their cash by working on better-off farms. The daily wage that poorer households varies depending on whether meals are provided by the employer. For instance, a laborer will earn \$5 USD per day if meals are included, and \$6 if they are not. The poor will also earn some cash by selling grains after the harvest, in addition to chickens according to need. A small percentage of the poor in this zone will also receive remittances. The better-off will also sell more types of livestock (poultry, pigs and cattle) and are capable of doing so more frequently. They may also receive remittances from relatives living in San Salvador or the United States.
Main Markets	All municipal and regional markets	
Labor Migration	Inside the zone and to zones 2 and 3	Several paved highways transect the zone, linking the many municipal markets with larger regional and national markets. However, from the municipal cities to the communities, the roads are only good during the dry season. Households are capable of selling their goods and purchasing essentials throughout the year with limited difficulty. Grains are sold at local markets or to intermediaries and are transported to larger trading
Hazards	Prolonged <i>canícula</i> ² , (more than 8 days) Crop pests (August) Rain failure (every 4 years) Excessive rain (every 2-4 years) Wind (every 2-4 years in Aug-Sept)	

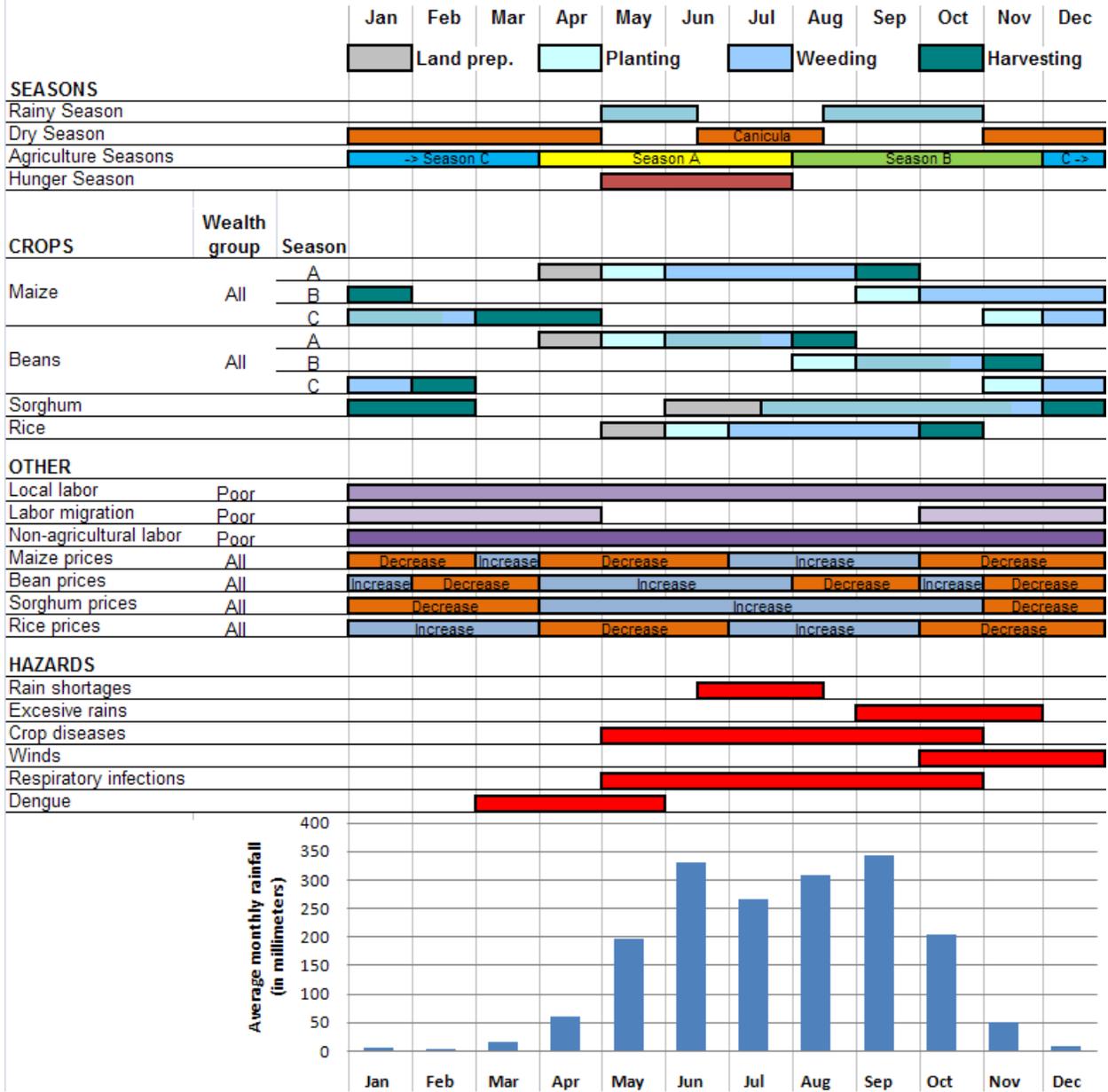
¹ Sesame is produced in Juayua, Salcoatitlan, Santa Catarina, Masahuat, Nahuizalco and Izalcoamo.

² *Canícula* is a brief dry period within the main rainy season.

		<p>centers within and outside the livelihood zone. Livestock such as chickens and pigs are typically sold at the community and municipal markets, whereas cattle are bought by traders or taken to large weekly markets (tiangués) to be sold.</p> <p>The zone's labor market is mostly restricted to crop production, but some may also find temporary work in local towns or in free-trade zones outside the zone; some also migrate to the United States.</p> <p>The impact of hazards to household food and cash access forces many to implement one or more coping strategies. Poorer households, with fewer resources at their disposal, will collect and sell firewood, migrate to coffee or sugarcane areas to look for work, sell additional livestock (usually chickens), sell available grains and collect wild foods. The better-off will sell grain reserves and reduce expenditure on hired labor, enlisting household or family members to fulfill labor requirements.</p>
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Seasonal calendar

Zone 1: Basic Grain and Labor Zone



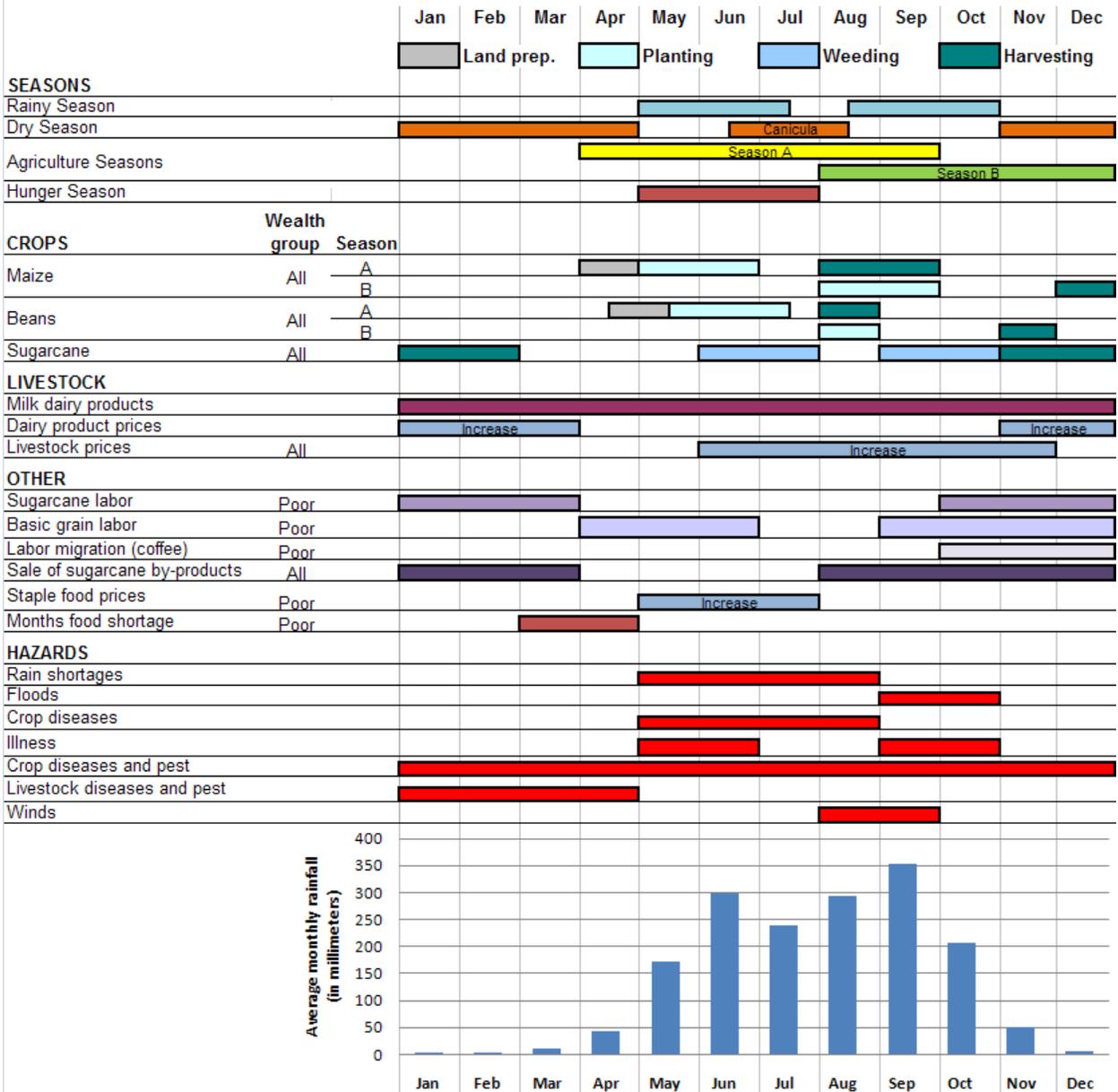
Livelihood Zone #2 – Coffee, Agro-Industrial and Labor Zone		
Food Crops	Maize Beans Rice Sorghum	<p>This non-contiguous livelihood zone sits within El Salvador's central volcanic mountain range and includes a small annex located in the northwestern part of Morazan department. Rainfall averages 1,900 mm per year. Livelihoods in this zone are largely dependent on the coffee industry and the labor opportunities it provides. In addition to coffee production, households may also cultivate and sell fruits, vegetables and grains, to a lesser degree. Livestock, which is typically limited to chickens, pigs and goats, is used to supplement food and cash needs throughout the year. Their contribution to annual food and cash needs is contingent on the availability of sufficient household resources to keep animals; wealthier households own a wider variety of species at larger numbers.</p> <p>Coffee dominates the zone's landscape, resulting in limited grain production for sale. On average, the poor produce 2,000 to 2,700 kg of maize and 800 to 1,125 kg of beans, mostly for household consumption and which would be enough for the whole year. In addition to the food purchased from the market, the better-off will also consume livestock products (poultry and small stock) along with grains and fruits produced on their farms.</p> <p>Households engage in a variety of income earning activities, poorer households obtain most of their cash from selling labor on the coffee plantations or performing labor on better-off households' farms. They earn on average \$4 USD per day or \$1 USD per <i>arroba</i> (100kg) of coffee. They also will sell firewood during the dry season and fruits, pigs and chickens according to need. Though coffee sales represent the bulk of better-off households' annual income, they will also sell livestock (mostly goats and chickens).</p> <p>Like other zones in El Salvador, most of the road networks are well maintained, linking local producers to larger regional and national markets. However, the roads from the municipal capital to the communities are not good during the rainy season. In general, commodities are traded with limited difficulty; however, in some of the more remote highland areas, heavy rains may limit access. Coffee is sold by local producers to the coffee industry within the zone, who process the grain and export it to international or national buyers. Fruits are sold locally by producers to traders, who transport the commodities to urban markets or exporters. Livestock is mostly reserved for household consumption, but some are sold at local markets according to household cash needs.</p> <p>Most coffee labor opportunities are found locally; however, migrant workers from Honduras and Nicaragua often flood the market with cheap labor, causing many locals to look for work in towns within the zone, and outside the zone - Sonsonate, La Libertad and Santa Ana.</p> <p>Household responses to zone hazards will vary according to their ability to use available resources without negatively affecting their livelihoods in the future. The poor will sell livestock, look for work inside and outside the zone, hunt wild animals and increase the sale of firewood. Better-off households will decrease expenses, hire fewer laborers, decrease farming inputs and look for self-employment opportunities.</p>
Sold Crops	Coffee Fruit Vegetables	
Livestock	Poor: Poultry Pigs	
	Better-off: Poultry Pigs Cattle (minority)	
Household Profile	Poor: 6-10 HH members Cultivated land: 0.35-0.7 <i>hectares</i>	
	Better-off: 4-5 HH members Cultivated land: 1.4-2.1 <i>hectares</i>	
Cash Income	Coffee sales Labor sales Livestock sales Firewood sales	
Main Markets	All municipal and regional markets	
Labor Migration	Inside the zone and to zone 3	
Hazards	<p>Decrease international coffee prices</p> <p>Rain failure (El Niño)</p> <p>Excessive rain (annually)</p> <p>Wind (annually)</p>	

Livelihood Zone #3 – Sugarcane, Agro-Industry and Labor Zone		
Food Crops	Maize Beans Sorghum	The majority of this livelihood zone sits along the coastal plain, with some areas north and west of San Salvador and in San Vicente are also included in the zone. Rainfall averages 1,700 mm per year. Though most of the land is used for sugarcane cultivation, most households will also grow maize and beans for consumption.. Chickens and other yard birds are kept by most households, especially the poor. The better-off may also have pigs and cattle. Livestock owned are consumed and sold according to availability and need. Cattle are raised in Naulingo and Izalco municipalities, and the milk industry employs nearly 300 families.
Sold Crops	Maize	
Livestock	Poor: Poultry Pigs	Land cultivation is dominated by cash crops; therefore most households cannot produce enough food to sustain themselves throughout the year and must purchase most of their annual food needs. Poor households, who only cultivate 0.7 to 1.4 hectares of rented land, will consume most of the grains produced, but may also sell a portion immediately after the harvest to repay debts or finance immediate needs. They will consume eggs and meat provided by their chickens. Owning more land, better-off households are capable of dedicating a larger portion for grain production. Though they sell a greater portion of their harvest, they will consume their own grains according to need. They will also supplement their diets with a wider variety of livestock products, including milk and cheese from cattle.
	Better-off: Cattle 3-18 heads	
Household profile	Poor: 6-10 HH members Cultivated land: 0.7-1.4 hectares (rented)	Labor opportunities from the sugarcane industry, plantations and better-off farms provide the zone's poor with most of their annual income. As mentioned before, the poor will also sell a fraction of their harvested grain in addition to poultry and pigs. The better-off earn most of their cash producing sugarcane and to a lesser extent grains. They will supplement their cash needs with the sale of dairy products and livestock throughout the year.
	Better-off: 4-5 HH members Cultivated land: 0.7-2.1 hectares	
Cash Income	Crop sales Labor Dairy product sales Livestock sales	Sugarcane is sold directly to the processing plants within the zone, whereas maize and beans are sold to intermediaries who then transport them to larger regional and national markets. Some local producers will save their maize and beans and sell locally when prices peak a few months before the harvest. Well-maintained road networks allow for a steady stream of commodities to flow into and outside of the zone year round.
Main Markets	Sugarcane factories San Miguel San Vicente San Salvador Ahuachapan Sonsonate	Though most of the labor needs are fulfilled locally, some households will migrate to Usulután, San Salvador or San Miguel between November and April. The TPS program ³ also allows many Salvadorans residency in the United States, enticing many to temporarily migrate there to find work.
Labor Migration	Inside the zone and to the capital	Rain failure may occur every three to five years, whereas crop pests and wind damage will occur annually, all resulting in cash and food deficits. Poor households will compensate for losses by looking for additional labor opportunities within and outside the zone and sell additional livestock. Better-off households tend to be more resilient and respond by selling larger livestock, such as cattle, and reduce agricultural investments, including hiring labor.
Hazards	Rain failure (every 3-5 years)	Sugarcane production also threatens the quality of the soil, due to the pesticides and fertilizers that the crop requires.
	Crop pests and diseases (annually)	
	Wind (annually)	
	Soil degradation from sugarcane production	

³ Temporary Protected Status (TPS) program allows temporary immigration status to eligible Salvadorians.

Seasonal calendar

Zone 3: Sugarcane, Agro-Industry and Labor Zone

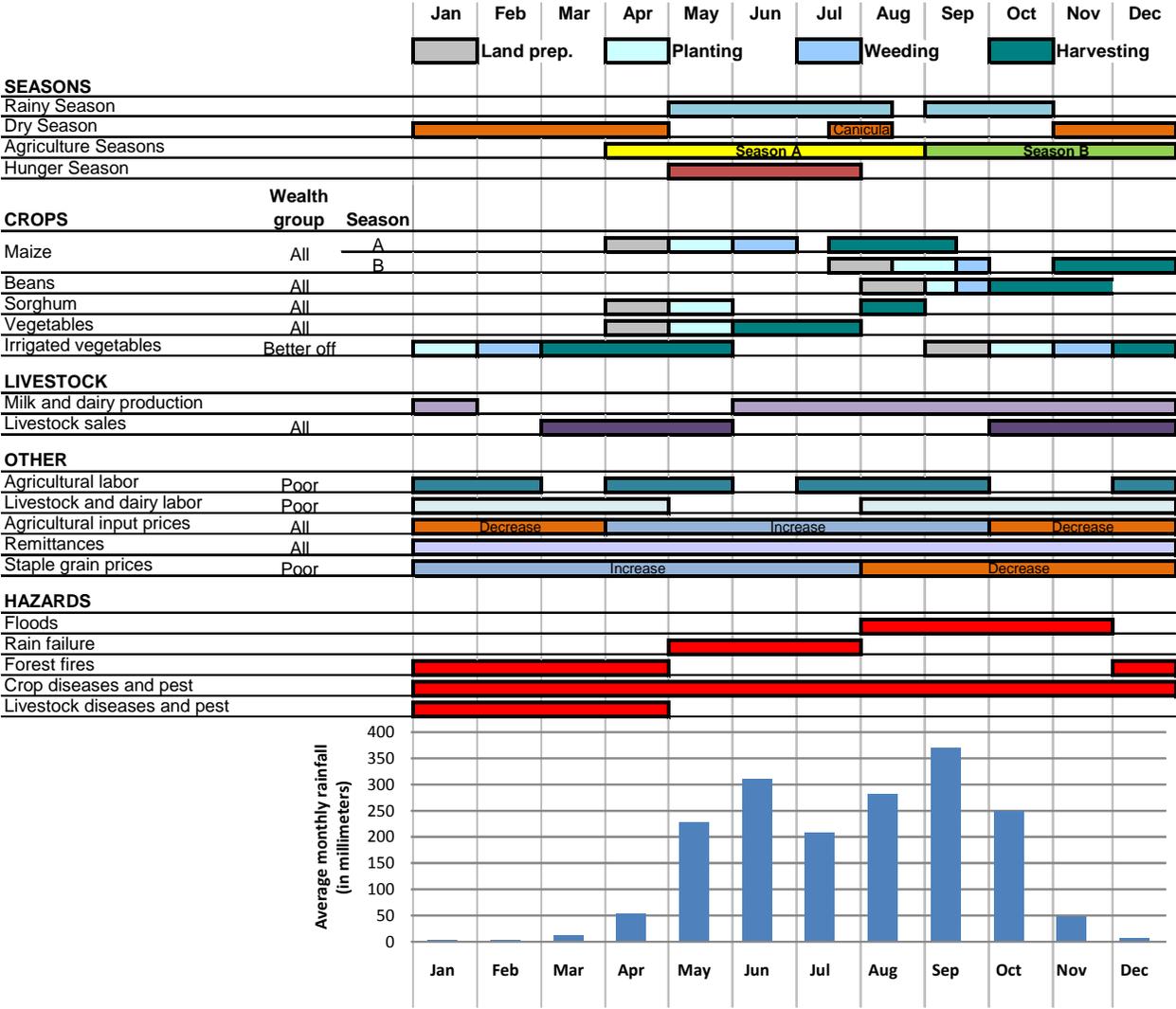


Livelihood Zone #4 – Eastern Basic Grain, Labor, Livestock and Remittance Zone		
Food Crops	Maize Beans Rice	Located in the drier eastern part of the country, this zone is situated within San Miguel, La Union and Morazán departments. Rainfall averages 1,800 mm per year. The zone’s landscape features pastures, woodland areas and crop lands. Crops such as maize and beans are produced for household consumption and sale. Sorghum is also produced to sell as livestock fodder. Livestock is owned by all households, though the types and numbers owned differs between wealth groups.
Sold Crops	Maize Beans Sorghum (for livestock)	
Livestock	Poor: Poultry ≈ 15	Cultivating maximum 0.35 hectares of land limits the amount of crops poor households are capable of harvesting for consumption and sale. The yield per 0.35 hectare is between 2,250 to 2,700 kg. Therefore, most of their annual food requirement is sourced from the market. The poor may supplement their diets with their own chickens. Though the better-off produce more crops than their poorer neighbors, they tend to sell most of the grains produced, especially when prices peak. Therefore they will rely on the market to meet the bulk of their annual food needs. They will also allocate larger tracts of land to cultivate sorghum, which they either sell or use to feed their own livestock. They supplement purchases and produced grain with livestock products such as milk, cheese and meats.
	Better-off: Poultry Pigs Cattle 2-5 heads	
Household profile	Poor: 6-8 HH members, 0-0.35 hectares cultivated	Similar to other zones, the poor earn most of their cash by laboring on better-off household farms. To cover immediate cash needs, the poor may sell grains produced immediately after harvest, though usually at lower prices. Better-off households earn most of their money from the sale of livestock, followed by crop sales. They will also receive a significant part of their annual income from household members living and working outside the zone (e.g. San Salvador and the United States). These remittances are mostly used to purchase cattle.
	Better-off: 3-5 HH members, 2.1-3.5 hectares cultivated	
Cash Income	Labor sales Crop sales Livestock sales	Reliable transportation and good road networks connect the smaller municipal markets within the zone with larger regional and national markets, in addition to those located in Honduras. Households are capable of commercializing their products (grains and livestock) throughout the year without limitation. Grains and livestock are sold and bought locally or sold to traders who transport them to larger trading centers. Most of the grains purchased by the zone’s residents originate from the zone. Prices increase when the supply of grains within the zone is constrained due to rain failure and during the months preceding the harvest.
Main Markets	<u>Crops:</u> San Miguel Usulután Santa Rosa de Lima San Francisco Gotera <u>Livestock:</u> Santa Rosa de Lima El Tránsito Nueva Guadalupe	
Labor Migration	To the main cities in the zone and to the United States	More than half of the labor demand is found within the zone, although some laborers will travel to towns outside the zone to look for casual work. The daily wage is between 6-7 USD. The TPS program also allows many Salvadorans residency in the United States, enticing many to temporarily migrate there to find work. Remittances in this zone are significantly higher than in other zones. Remittances have declined recently with the financial crisis in the United States.
Hazards	Floods (annually) Rain failure (annually) Wild fires (annually) Livestock pests and diseases Increase in livestock input prices Delinquency	To counteract the effect of hazards, households will engage in a variety of response strategies. Poor households will sell grain reserves, chickens and firewood to earn cash to buy food and non-food items. They may also engage in illegal activities such as theft/robbery or the drug trade. Better-off household may respond by increasing the sale of livestock, reduce expenditure on labor, sell available grain reserves to buy cheaper foods

and send more household members to look for work in the cities and in the United States.

Seasonal calendar

Zone 4: Eastern Basic Grain, Labor, Livestock and Remittance Zone

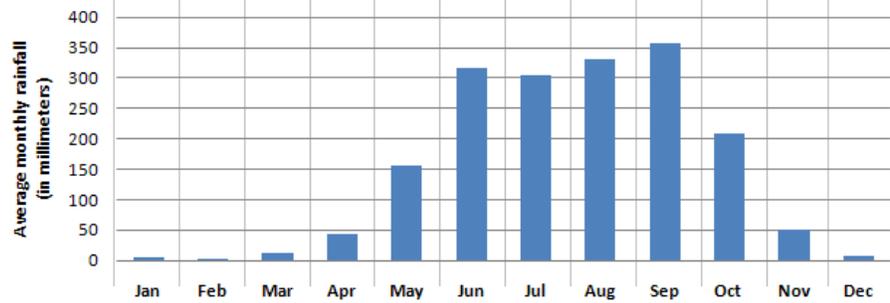


Livelihood Zone #5 – Central Free-Trade, Services and Industrial Labor Zone		
Food Crops	Garden vegetables and grains (small quantities)	<p>This zone covers most of greater San Salvador and Ciudad Arce, parts of southeastern La Libertad and southwestern La Paz. Rainfall averages 1,800 mm per year. Residents in this dense peri-urban zone rely solely on labor opportunities provided by textile factories, the services industry and the industrial sector as their main source of income. Road networks and affordable transportation services allow most of the zone’s population to live in the more affordable areas surrounding the urban centers and commute to their places of employment.</p> <p>Though some households may have small gardens or rent land to cultivate small areas to supplement their annual food requirement, nearly all buy their food from local markets and small shops. Livestock is also uncommon, but some households may have yard animals such as ducks, chickens and to a lesser extent pigs. Dietary differences between wealth groups are found in the types of food households are able to afford. Better-off households may buy higher quality grains and more luxury food items, whereas the poor may rely on cheaper staples and poultry.</p> <p>Income for most of the zone’s population is derived from formal and informal employment opportunities provided by the textile factories, services industry and industrial sector. Labor provided is typically unskilled and susceptible to seasonal demand. Better-off households may also find labor opportunities from the aforementioned industries; however, the types of employment they engage in tend to be more skill and specialized. Most of the income earned by the better-off is derived from self employment: small shops, food stalls, tailors, barbers, carpenters, etc. They will also find formal employment with the local government as police officers, teachers or low-level administrators.</p> <p>Extensive paved road networks allow for a steady stream of commodities, particular grains from Nicaragua, Honduras and El Salvador’s rural areas, to flow into the zone without limitation throughout the year. Households purchase both essential and non-essential items from informal markets e.g. street vendors or temporary food stalls, or formal markets, such as small neighborhood shops and municipal markets.</p> <p>Nearly all labor opportunities are found within the zone and in the large urban centers of San Salvador and Ciudad Arce. Some, however, take advantage of the United States government’s Temporary Protected Status (TPS) program in order to send remittances back to their families.</p> <p>Increased staple food prices are a concern for most of the zone’s population, especially for the poor. These increases can result from crop failure in neighboring countries and in the rural areas. Decreased labor demand will also affect household purchasing power and push households to engage in alternate income earning activities such as petty trade, labor migration and sometimes crime.</p>
Sold Crops	N/A	
Livestock	Poor: Chickens Ducks Pigs	
	Better-off: Chickens Ducks Pigs (not majority)	
Household profile	Poor: 4-6 HH members. No significant land extension cultivate.	
	Better-off: 3-4 HH members. No land cultivated.	
Cash Income	Formal and informal labor	
Main Markets	San Salvador	
Labor Migration	To the United States	
Hazards	<ul style="list-style-type: none"> Rise in staple food prices Decrease labor demand Earthquakes Crime 	

Seasonal calendar

Zone 5: Central Free-Trade, Services and Industrial Labor Zone

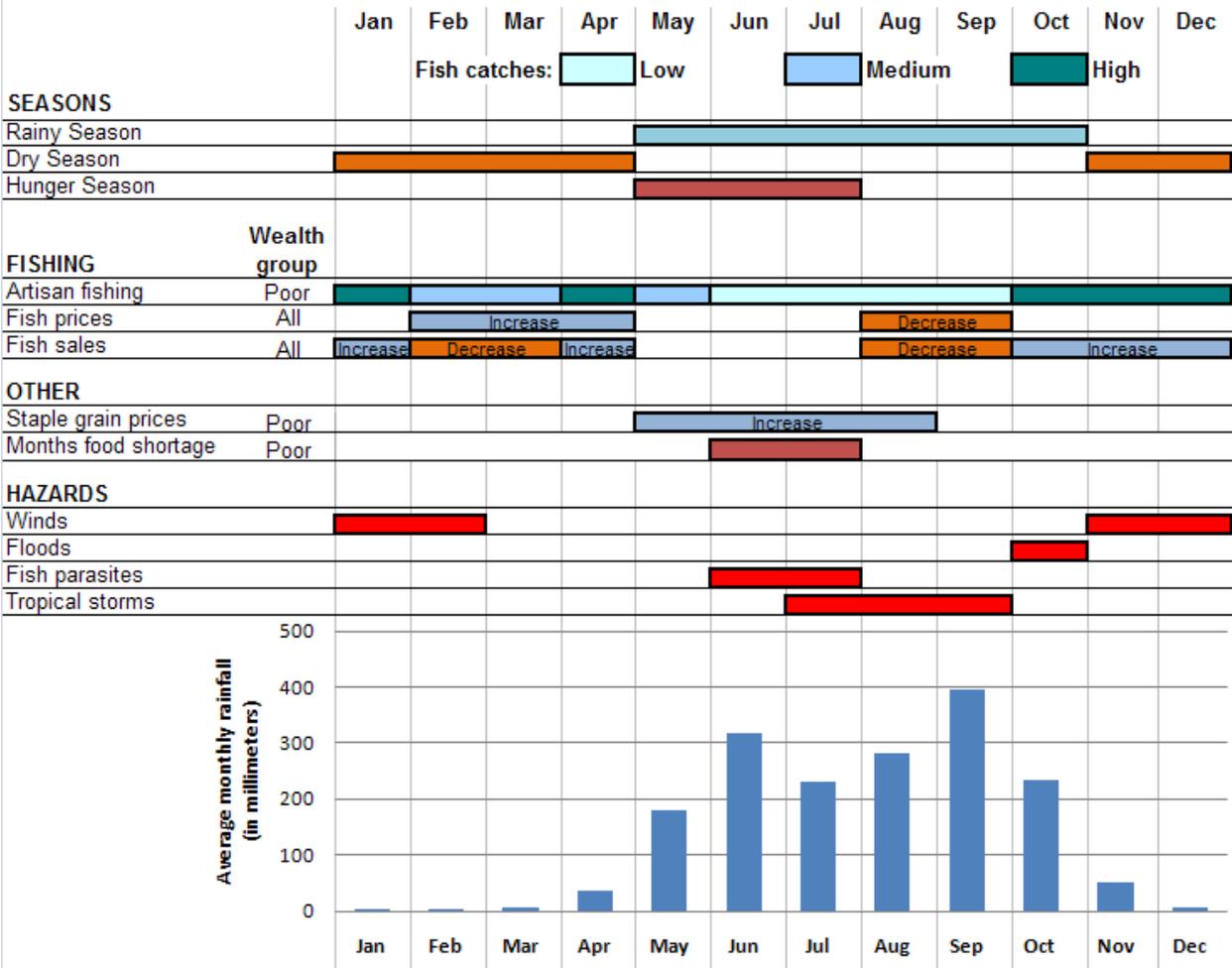
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
LABOR															
Formal employment - Industry	All	[Green bar]													
Formal employment - Free trade zones	All	[Green bar]													
Temporary employment - Free trade zones	Poor	[Light blue bar]													
Employment - construction	Poor	[Light blue bar]								[Light blue bar]					
Labor migration to Greater San Salvador	All	[Dark blue bar]													
OTHER															
Trade	All	[Purple bar]						[Purple bar]						[Purple bar]	
Petty trade	Poor	[Purple bar]						[Purple bar]						[Purple bar]	
Staple grain prices	Poor	[Orange bar: Increase]		[Orange bar: Decrease]		[Orange bar: Increase]		[Orange bar: Decrease]		[Orange bar: Increase]					
HAZARDS															
Floods									[Red bar]						
Landslides									[Red bar]						
Health (diarrhea, flu, dengue)					[Red bar]				[Red bar]						



Livelihood Zone #6 – Fishing, Aquaculture and Tourism Zone		
Food Crops	Maize Beans	The borders of this coastal zone extend from the shore inland about 1 to 5 km and stretches along the length of El Salvador’s coastline from the Gulf of Fonseca north to the Guatemalan border. Rainfall averages 1,800 mm per year. Households in this zone rely primarily on artisanal fishing to meet their annual cash and food needs, though some may also find income opportunities from the tourism industry.
Sold Crops	N/A	
Livestock	Poor: Chickens Pigs	Very few households cultivate small plots of maize and beans, however the amounts are insufficient for the whole year. Therefore, the market serves at the main source of food for the zone’s majority. There are noteworthy differences in the types of food purchased by different households. Better-off may buy luxury foods such as meats, along with higher valued grains, while the poor rely on cheaper staple grains. In addition to grains, households will compliment food purchases with livestock products and fish harvested from the sea. In the north of the zone, some household sell sorghum as a secondary income source.
	Better-off: Chickens Pigs Cattle ≈ 2-5 head	
Household profile	Poor: 6-8 HH members. No significant land cultivated.	For the poor, cash is earned from the sale of fish and shellfish, followed by labor in the tourism industry. Laborers earn approximately \$20 USD per day or between \$200-400 per month (cooperative). They must rent equipment from better-off households or pay dues to the cooperative. Better-off households will also earn most of their money from fish sales, but they typically earn more since they will own the equipment needed (such as nets and boats). They will also obtain cash by renting out fishing equipment and through remittances from relatives living in San Salvador or in the United States.
	Better-off: 3-4 HH members. No land cultivated.	
Cash Income	Fish and shellfish sales Labor Petty trade Fishing equipment rental Remittances	
Main Markets	Acalutla La Libertad Municipal markets	The coastal highway follows the length of the coastline, linking communities with each other and with the majority of the North-South transportation arteries that transect the country. Maize and beans are brought in from outside the zone and sold at municipal markets. Fish, the zone’s main commodity, is sold locally to consumers or to traders who transport them to larger markets or San Salvador.
Labor Migration	To the main cities and elsewhere in the zone	
Hazards	Excessive rainfall	Though most labor opportunities are found locally, some will travel to San Salvador, Santa Ana and San Miguel from April to September. Similar to other zones, many households will have one or two family members living and working in the United States who periodically send remittances. After a shock, households will engage in one or more coping strategies to offset any cash or food deficit. Poor households will reduce expenditures, increase labor, migrate to cities (especially women to the capital to work as domestic servants) and increase the collection of conchs. Better-off will also reduce expenditures and/or increase the frequency of fishing equipment rental.
	Wind damage	
	Fish disease	
	Tropical storms	

Seasonal calendar

Zone 6: Fishing, Aquaculture and Tourism Zone



Annex – Workshop participants

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